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invent ificall ificall antige antige Ifor The properties of the pr	New antibody treating or Claim 14; SE	G, CA;	JL-2003; JL-2002;	WO2004005470 15-JAN-2004.	shed antigen; breast cancer; Homo sapiens.	n Mucl/	06-MAY-2004	6741 st 6741;		104 104 104 104 104 104 104 104 104 104
ion rely bind y bind or con or complete complete mall sthat stllular on.	ody to norit	IMMUNOGEN INCChittenden;		70-A2.		Muc1/Muc16	(fir	:andard;		97.1
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This invention relates to a novel isolated monocle specifically binds to an epicope of a non-shed ext shed antigen or of human Mucl or Mucl6 protein. The useful for the development of compounds with a cyt therapy. The composition and methods are useful ir or monitoring malignancies, such as breast or ovar sequence is that of a peptide which was used for r the extracellular, non-shed region of Mucl6 and wh specification.	to non-shed human Mucl or Mucl6, useful monitoring malignancies, such as breast (Q ID NO 14; 113pp; English.	Goldmakher V, Chun P, S	7. P.		c16; cytostat	ted peptide S		20 AA.	ALIGNMENTS	ADF08975 ADG46241 ADM30754 ADM41326 ADQ29705 ABP30965 ADR08955 ADR08955 ADG46242 ADF08955 ADG46247 ADR12352 ADR12352 ADM12352 ADM12352 ADM12352 ADM12357 ABM5477 ABM54791 ABM54791 ADM72871 ADM72871 ADM72871 ADM72871 ADM72873 ADM72871 ADM72873 ADM72871 ADM72873
lated monoclonal antibody that non-shed extracellular portion of a protein. The invention may be is with a cytostatic or for gene ire useful in diagnosing, treating reast or ovarian cancer. The present used for raising antibodies to Mucl6 and which is claimed in the	ful for diagnosing, st or ovarian cancer.	Sneider-Mulready K;			ic; gene therapy; malignancy;					Adf08975 Secreted Adg46241 Human ova Adm30754 Human can Adm30755 Human con Adh41326 Human con Add29705 Human col Abp30965 Protein w Ada08612 Human 077 Adf08955 Secreted Adf10190 Human ova Adf10190 Human ova Adf10190 Human ova Adm12352 Human CA1 Adf06747 Human CA1 Adf66747 Human CA1 Adj667471 Human CA1 Adb54639 Human CA1 Adb54721 Human CA1 Adb54721 Human CA1 Adb4155 Human CA1 Adb8155 Human CA1

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                                       CC polypeptides present in normal and neoplastic ovariant cells. These cc comprise a nucleic acid sequence encoding any of the 167 amino acid CC sequences (e.g. 438, 237 or 233 amino acids) fully defined in the CC specification (SEQ. ID NOs: ADP81095 to ADP81261) and comprises any of the 128 nucleotide sequences (e.g. 4798, 1494 or 1691 bp) fully defined CC in the specification (SEQ. ID NOs: ADP80967 to ADP81094). The invention CC further comprises: a method for determining the presence of a ovarian CC specific nucleic acid (OSNA) in a sample; a vector comprising the above nucleic acid molecule, a host cell comprising the vector; a method for producing a polypeptide encoded by the above nucleic acid molecule; a cC method for determining the presence of an antibody or its fragment that specifically binds to the above polypeptide; a cC method for determining the presence of an ovarian specific protein in a CC sample; a method for determining the presence of an ovarian specific protein in a CC sample; a method for treating a patient, the kit comprising a means for CC polypeptide; a method of treating a patient with ovarian cancer; and a cc cancer comprising the above nucleic acid molecule or presence of the above nucleic acid molecule or comprising the presence and metastases of vaccine comprising the above nucleic acid molecules have cytostatic activity. The isolated polypeptides may be used to create a cc cancer and treating ovarian cancer. This securence are protein to concert and treating ovarian cancers the protein concerts the protein concerns the protein
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30-JUN-2003;
07-NOV-2003;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to novel isolated nucleic acid molecules
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 12; SEQ ID NO 206; 754pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              New ovarian specific nucleic acid molecules and polypeptides useful diagnosing, preventing or treating ovarian cancer, for producing transgenic animals or cells, or for research purposes.
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DB; ADP81027.
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Best Local Similarity
Matches 20; Conserv
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                                                                                                                     This invention relates to a novel isolated monoclonal antibody that specifically binds to an epitope of a non-shed extracellular portion of a shed antigen or of human Mucl or Mucl6 protein. The invention may be useful for the development of compounds with a cytostatic or for gene therapy. The composition and methods are useful in diagnosing, treating or monitoring malignancies, such as breast or ovarian cancer. The present sequence is that of a Muc epitope of the invention.
                                                                                                                                                                                                                                                                                                             Payne G,
Vater CA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              of an ovarian specific gene of the invention.
                                                                                              Sequence 108 AA;
                                                                                                                                                                                                                                               treating
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           06-MAY-2004
                                                                                                                                                                                                                                               New antibody to non-shed human Muc1 or Muc16, useful for diagnosing, treating or monitoring malignancies, such as breast or ovarian cancer.
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shed antigen; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human Muc16 epitope amino acid sequence.
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86
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                                                                                                                                                                                                                                                                                                                          Goldmakher
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                                              <u>,</u>
105
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Pred. No. 1.6e-08;
                                                           Score 104; DB 8;
Pred. No. 1.9e-08;
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                                               Mismatches
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                                                                                                                                                                                                                                                                                                                          Chun
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene therapy; malignancy;
                                                                     Length 108;
                                                                                                                                                                                                                                                                                                                          Sneider-Mulready
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RESULT 5
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                                                                                                                       normal; neoplastic; ovarian; ovarian specific nucleic acid; OSNA; metastatic; cancer; vaccine; cytostatic; human.
                                                                                                                                                             Protein of human ovarian specific gene,
                                                                                                                                                                                                                                                                                                                                                                                                                                           This invention relates to a novel isolated monoclonal antibody that specifically binds to an epitope of a non-shed extracellular portion of a shed antigen or of human Mucl or Mucl fyrottein. The invention may be useful for the development of compounds with a cytostatic or for gene therapy. The composition and methods are useful in diagnosing, treating or monitoring malignancies, such as breast or ovarian cancer. The present sequence is that of the human Mucl6 GST fusion protein which was used in
06-DEC-2002; 2002US-0431301P
                       08-DEC-2003; 2003WO-US038855.
                                                  24-JUN-2004
                                                                          WO2004053079-A2
                                                                                                 Homo sapiens
                                                                                                                                                                                        09-SEP-2004
                                                                                                                                                                                                                 ADP81173;
                                                                                                                                                                                                                                         ADP81173 standard; protein; 109 AA
                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; SEQ ID NO 13; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New antibody to non-shed human Muc1 or Muc16, useful for diagnosing, treating or monitoring malignancies, such as breast or ovarian cance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Payne
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       03-JUL-2002; 2002US-0393094P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            monoclonal antibody; epitope; non-shed extracellular portion; shed antigen; human; Muc1; Muc16; cytostatic; gene therapy; malignancy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human Muc16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             06-MAY-2004
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                                                                                                                                                                                                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                  exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2004-091350/09.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          sapiens.
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                                                                                                                                                                                                                                                                                                       SSVLVDGYSPNRNEPLTGNS 105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Chittenden T,
                                                                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GST fusion protein amino acid sequence SeqID13.
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                                                                                                                                                                                                                                                                                                                                                      Score 104; DB 8;
Pred. No. 1.9e-08;
; Mismatches 0;
                                                                                                                                                              SEQ ID No
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                                                                                                                                                                                                                                                                                                                                                                             Length 108;
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cytostatic; immunostimulant; cancer;

Human cancer linked protein

20-MAY-2004 ADM30756;

(first entry)

human; cancer-related gene; screening assay; immuno-conjugate;

ovarian cancer.

referred

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as 192292 SeqID 4.

WO2003075854-A2 Homo sapiens ADM30756

ADM30756 standard;

protein; 174

RESULT 6

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31

SSVLVDGYSPNRNEPLTGNS

50 20

1 SSVLVDGYSPNRNEPLTGNS

Matches

0

Indels

<u>.</u>

Gaps

0,

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CC polypeptides present in normal and neoplastic ovarian cells. These comprise a nucleic acid sequence encoding any of the 167 amino acid sequences (e.g. 438, 237 or 233 amino acids) fully defined in the secification (SEQ. ID NOS: ADP81095 to ADP81261) and comprises any of the 128 nucleotide sequences (e.g. 4788, 1494 or 1691 bp) fully defined in the specific acid (SEQ. ID NOS: ADP80967 to ADP81094). The invention CC further comprises: a method for determining the presence of a ovarian specific nucleic acid (OSNA) in a sample; a vector comprising the above nucleic acid molecule; a host cell comprising the vector; a method for CC producing a polypeptide encoded by the nucleic acid molecule; a cc polypeptide encoded by the above nucleic acid molecule; a cc method for determining the presence of an ovarian specific protein in a cc sample; a method for diagnosing or monitoring the presence and metastases of ovarian cancer in a patient, a kit for determining the presence of comprising a means for CC polypeptide; a method of treating a patient with ovarian cancer; and a cc polypeptide; a method of treating a patient with ovarian cancer; and a cc vaccine. The isolated nucleic acid molecules and polypeptides have cytostatic activity. The isolated polypeptides may be used to create a cc vaccine. The isolated nucleic acid molecules and polypeptides can be used coreate and creating ovarian cancer. This sequence represents the protein cancer and treating ovarian cancer. This sequence represents the protein of an ovarian specific gene of the invention.
                            Best
                                           Query Match
                                                                                     Sequence 109
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New ovarian specific nucleic acid molecules and polypeptides useful diagnosing, preventing or treating ovarian cancer, for producing transgenic animals or cells, or for research purposes.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  06-DEC-2002; 2002US-0431321P.
30-JUN-2003; 2003US-0484584P.
07-NOV-2003; 2003US-0518607P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   The invention relates to novel isolated nucleic acid molecules
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 12; SEQ ID NO 207; 754pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       N-PSDB;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (DIAD-) DIADEXUS INC.
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    l Similarity
20; Conser
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  100.0%;
llarity 100.0%;
Conservative (
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Score 104; DB b;
Pred. No. 1.9e-08;
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                                              Length 109;
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RESULT 7
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Matches 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            This invention relates to a novel method of identifying an agent that modulates the activity of a cancer-related gene. Specifically, it refers to a screening assay to identify potential antitumour agents, as well as methods to assess the cancerous state of a cell. The present invention describes antibodies against the expression products of these cancer-related genes that are capable of targeting a cancerous cell in vivo. Furthermore it provides immuno-conjugates containing such antibodies, which can be used to deliver target therapeutics thereto. Accordingly, these compositions that exhibit cytostatic and immunostimulant activities are useful for preventing or treating cancer in humans and in particular the treatment of ovarian cancer. This polypeptide sequence is a protein encoded by a human cancer-linked gene of the invention.
                                                                 17-APR-2001; 2001US-0284175P.
19-JUN-2001; 2001US-0299380P.
27-SEP-2001; 2001US-00965738.
21-DEC-2001; 2001US-0345180P.
                                                                                                                                                                                                                                                                     Human; CA125; protein repeat; chromosome 19q 13.2; amino terminal domain; amino terminal extension; carboxy terminal domain; vaccine; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Identifying an agent that modulates the activity of any of three specific cancer-related genes, potentially useful in treating (ovarian) cancer, comprises detecting a difference in expression of the gene in the presence of the agent.
              O'brien
                                                                                                                                                                      24-OCT-2002.
                                                                                                                                                                                                  WO200283866-A2
                                                                                                                                                                                                                               Homo
                                                                                                                                                                                                                                                                                                               Human CA125
                                                                                                                                                                                                                                                                                                                                                                                                  ABU54859 standard; protein; 284 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 174
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                                                                                                                                         12-APR-2002; 2002WO-US011734.
                                                                                                                                                                                                                                                                                                                                            12-MAR-2003
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                                        (UYAR-)
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                                        VIND
                                                                                                                                                                                                                                                         cancer; carcinoma.
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                                                                                                                                                                                                                                                                                                               carboxy terminal domain
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
             Beard
                                        ARKANSAS
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                                                                                                                                                                                                                                                                                                                                          entry)
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           Underwood
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Pred. No. 3.2e-08;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 174;
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The invention relates to a CA125 protein comprising: (a) an extracellular camino terminal domain; (b) an amino terminal domain; and (d) a carboxy terminal domain. The extracellular amino terminal domain comprises 5 genomic exons, the amino terminal extension comprises 4 genomic exons, each repeat unit comprises 5 genomic exons and the carboxy terminal domain comprises a transmembrane anchor with a short cytoplasmic domain, and further comprises 9 genomic exons. The gene for cytoplasmic domain, nucleic acids (including variants, homologues and call25 repeat domain, nucleic acids (including variants, homologues and call25 repeat units (or their variants, respect units, a vector comprising the nucleic acid, a cultured cell comprising the vector, a comprising the versions) encoding CA125 proteins or repeat units, a vector of the CA125 repeat units (or their variants, fragments or sequences of the CA125 repeat units (or their variants, fragments or sequences of cetecting and monitoring the presence of CA125 protein, a diagnostic for detecting and monitoring the presence of CA125 protein, a diagnostic for comprise in the receptor-binding domain of CA125 protein, a diagnostic for disease or disease recurrence associated with elevated CA125 repeat unit of the CA125 antigen to treat domain including epitope binding sites), a therapeutic vaccine to treat comprising recombinant CA125 repeat domains including epitope binding sites), a therapeutic vaccine to treat comprise of CA125 antigen levels or at risk of developing a comprise of CA125 antigen antisense oligonucleotide that inhibits the comprise of CA125 antigen, which can be used for detecting and monitoring the compression of CA125 antigen, which can be used for diagnosing, monitoring the compression of CA125 antigen, which can be used for developing a vaccine compression of CA125 antigen and cancer and other carcinomas where CA125 is expressed. The molecules are also useful for developing a vaccine compression of the catering and monitoring the compression of the ca
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New CA125 molecules, useful as a gold standard for detecting monitoring the presence of CA125 antigen which can be used for diagnosing, monitoring or treating patients with cancer or form
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1; Fig 9b; 694pp; English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  against cancer.
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                                     Matches
                                             Query Match
Best Local
206
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                                              Similarity
SSVLVDGYSPNRNEPLTGNS
                  SSVLVDGYSPNRNEPLTGNS 20
                                             100.0%; Score 104; DB 6; 100.0%; Pred. No. 5.6e-08;
                                    0;
                                     Mismatches
                                      0
                                                      Length 284;
                                     0,
                                    Gaps
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Sequence

284 AA;

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RESULT 8
AAE12623
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AAE12623 standard; protein; 438

AAE12623;

03-JAN-2002 (first entry)

Human gene 1 encoded secreted protein HIPAZ30.

Alzheimer's disease; Parkinson's disease; diabetes; angiogenic disorde atherosclerosis; cardiovascular disorder; gastrointestinal disorder; epithelial cell proliferation; transplantation; chemotaxis; infection; food additive; wound healing; endocrine disorder; kidney disorder; gene therapy; cytostatic. Human; ovarian cancer antigen; proliferative disorder; cancer; tumour; respiratory system disorder; ashma; haematopoletic disorder; skin aging; immune system disorder; allos; skin disorder; autofimmune disease; allergy; rheumatoid arthritis; inflammation; neurological disorder; septic shock; disorder;

16-MAR-2001; 2001WO-US008585

27-SEP-2001

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RESULT 9
ABP30973
ID ABP3
XX ABP3
XX ABP3
XX ABP3
XX Part
XX Part
XX Part
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ovarian cancer associated protein (collectively known as ovarian cancer antigens) genes, and ARE12633-ARE12639 represent the proteins they encode. ARE12630-ARE12638 represent human ovarian cancer antigenic fragments or variants. Ovarian cancer antigens and their corresponding DNAs are used in the prevention, diagnosis and treatment of diseases associated with their inappropriate expression. These disorders include proliferative disorders, cancer, tumours, respiratory system disorders, asthma, haematopoletic disorders, diseases of the immune system, AIDS, even disorders associated associated as the province of the sum of the sum of the province of the sum of the
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                                                                                     WO200206317-A2
                                                                                                                                                                                    Homo
                                                                                                                                                                                                                                                                                                                                                          Partial protein sequence of clone 0772P partial cDNA sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABP30973;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABP30973 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 438 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 11; Page 412-414; 427pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-MAR-2000; 2000US-0190076P.
23-AUG-2000; 2000US-0227009P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            the invention
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)B; AAD20618.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Œ,
                                                                                                                                                                                                                                                                     immunostimulant;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SSVLVDGYSPNRNEPLTGNS 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SSVLVDGYSPNRNEPLTGNS 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rosen CA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    protein; 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                                                                                cytostatic; cancer; ovarian carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 104; DB 4;
Pred. No. 9.2e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 438;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0
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RESULT 10
ADA08636
ID ADA08636
AC ADA08
XX ADA08
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XX Humar
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XX
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Best Local S
Matches 20
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20-SEP-2000;
04-APR-2001;
18-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mitcham
Reed SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This invention relates to polypeptides comprising an immunogenic portion of an ovarian carcinoma protein which acts as an immunostimulant and is cytostatic. The polypeptides, polynucleotides, antibodies, fusion proteins, T cell populations and antigen presenting cells that express the polypeptides are useful for stimulating an immune response in a patient and treating ovarian cancer. This sequence represents protein
                                                                                                                 (MITC/)
(KING/)
(ALGA/)
(FLIN/)
                                                                                                                                                                                                                                                                                 17-JUL-2001;
                                                                                                                                                                                                                                                                                                                                15-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                            US2003091580-A1
                                                                                                                                                                                                                                                                                                                                                                                                                        Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       human; gene therapy; ovarian cancer; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human 0772P partial protein #6.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       06-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADA08636;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ADA08636 standard; protein; 438 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 13; Page 357; 408pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Polypeptides comprising an immunogenic portion of an ovar protein or its variants, useful for stimulating an immune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                N-PSDB; ABN72979.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2002-164781/21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-JUL-2000;
                        (REED/
                                                                                                                                                                                                                                     18-JUN-2001; 2001US-00884441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              patient and treating ovarian cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-JUL-2001; 2001WO-US022635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           related to the invention
                                                                         FANG/
                                                                                             RETT/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      360
              KING G E.
ALGATE P A.
FLING S P.
RETTER M W.
FANGER G R.
REED S G.
VEDVICK T S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ch 100.0%; l Similarity 100.0%; 20; Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JL, King GE,
, Vedvick TS,
                                                                                                                                                                                      MITCHAM J L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SSVLVDGYSPNRNEPLTGNS 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            438 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SSVLVDGYSPNRNEPLTGNS 379
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; 2000US-00617747.
; 2000US-00636801.
; 2000US-00667857.
; 2001US-00827271.
; 2001US-00884441.
                                                                                                                                                                                                                                                                                   2001US-00907969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Algate
Carter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 104; DB 5;
Pred. No. 9.2e-08;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   D, DA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Fling 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               y SP,
b. Albone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Retter bone E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 438;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ME,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ovarian carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         response
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fanger GR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Gaps
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CARTER D.

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                                                                                17-JUL-2000;
10-AUG-2000;
20-SEP-2000;
04-APR-2001;
18-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to an isolated 0772P polypeptide, which has the structure fully defined in the specification. The composition containing the polypeptides, polynucleotides, fusion proteins, antibodies. T-cells or antigen presenting cells are useful for stimulating an immune response and treating ovarian cancer. Detecting the presence of the polynucleotides and polypeptides is useful for diagnosing cancer. Ovarian carcinoma cDNAs and protein cDNAs were identified using microarray technology. The present sequence represents a human ovarian carcinoma
                                                                                                                                                                                                                                                          Homo
                                                                                                                                                                                            17-JUL-2002; 2002US-00198053.
                                                                                                                                                                                                                                                                              breast cancer; secreted ovaria
                                                                                                                                                                                                                                                                                       gene therapy; protein therapy; vaccine; antibody inhibition;
breast cancer; restorative therapy; diagnostic agent; immunoassay;
                                                                                                                                                                                                                                                                                                                         Secreted ovarian carcinoma antigen seqid 483
                                                                                                                                                                                                                                                                                                                                                                                       ADF08979 standard; protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 13; SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             New isolated 0772P polypeptides and polynucleotides, therapy, particularly for treating or diagnosing canc
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2003-532352/50
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mitcham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (HILL/)
                                                                                                                                       24-SEP-1999;
                                                                                                                                                 17-DEC-1998;
23-JUN-1999;
                                                                                                                                                                      17-DEC-1998;
                                                                                                                                                                                                                 03-JUL-2003
                                                                                                                                                                                                                                    US2003124140-A1
                                                                                                                                                                                                                                                                                                                                                12-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                     ADF08979
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                          sapiens
          2003-897152/82
                                                                                                                                                                                                                                                                                                                                                                                                                                              360
                                                                                                                                                                                                                                                                                                                                                                                                                                            1 SSYLVDGYSPNRNEPLTGNS 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        20;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   JL, King
, Vedvick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   HILL P.
                                                   CORIXA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                               ovarian
                                                                     98US-00215681

98US-00316033

99US-00338933

2009US-00404879

2009US-00636801

2000US-00636801

2000US-00667857

2001US-00884441

2001US-00894491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      100.0%; ilarity 100.0%; Conservative 0
                              Retter MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  3
                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    M
                                                   CORP
                                                                                                                                                                                                                                                                               carcinoma antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NO 483; 371pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Algate PA,
Carter D,
                              Fanger GR,
                                                                                                                                                                                                                                                                                                                                                                                         438
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ٥,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 104; Db /;
Pred. No. 9.2e-08;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fling SP, Retter MW,
Hill P, Albone E;
                              Hill
                              ď
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Length 438;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          des, useful in cancer, e.g. c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fanger GR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               n gene
ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
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The invention describes nucleic acids (I) and the polypeptides (II) they CC encode. The nucleic acids (I) may be used for preventing, diagnosing and CC treating diseases related to their aberrant expression i.e. breast CC cancers. For example, (I) and (II) may be used to treat disorders CC cancers. For example, (I) and (II) may be used to treat disorders CC in active proteins or to supplement the activity of (II) by expressing CC inactive proteins or to supplement the patients own production of (II). CC Additionally, (I) may be used to produce (II), by inserting (I) into a CC complementary sequences may also be used as DNA probes in diagnostic CC assays to detect and quantitate the presence of similar nucleic acids in CC samples, and therefore which patients may be in need of restorative CC therapy. The host cell may also be used as antigens in the production of CC antibodies against (II) and in assays to identify modulators of (II)'s CC complementary and activity. The anti-(II) antibodies, agonists and carcivity and as complementary and activity. The anti-(II) antibodies, agonists and carcinoma carcinoma as complementary and activity and as complementary and activity and as complementary and activity. The anti-(II) antibodies, agonists and carcinoma carcinoma carcinoma carcinoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Oncogenic nucleic acids useful for the prevention, treatment of breast cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 13; SEQ ID NO 483; 399pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             diagnosis and
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Sequence 438

AA;

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RESULT 12
ABU54709
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                                                                                                                                                                                                                                                                                                                                                              Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                   Human; CA125; protein repeat; chromosome 19q 13.2; amino terminal domain; amino terminal extension; carboxy terminal domain; vaccine; cancer;
                                                                                                                                                                                                                          Human CA125 protein carboxy terminus
                                                                                                                                          24-OCT-2002
                                                                                                                                                         WO200283866-A2
                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                           ovarian cancer;
                                                                                                                                                                                                                                             12-MAR-2003
                                                                                                                                                                                                                                                                            ABU54709 standard; protein; 439
                                                                                                                                                                                                                                                                                                                      360 SSVLVDGYSPNRNEPLTGNS
                                                                                                                                                                                                                                                                                                                                                      20;
                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                SSVLVDGYSPNRNEPLTGNS
                                                                                                                                                                                                                                                                                                                                                     100.0%; Score 104; DB 7;
larity 100.0%; Pred. No. 9.2e-08;
Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                           carcinoma
                                                                                                                                                                                                                                                                                                                      379
                                                                                                                                                                                                                                                                                                                                       20
                                                                                                                                                                                                                                                                                                                                                                     Length 438;
                                                                                                                                                                                                                                                                                                                                                       ٥.
                                                                                                                                                                                                                                                                                                                                                     Gaps
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17-APR-2001; 19-JUN-2001; 27-SEP-2001; 21-DEC-2001;

; 2001US-0284175P. ; 2001US-0299380P. ; 2001US-00965738. ; 2001US-0345180P.

12-APR-2002;

2002WO-US011734.

O'brien

Beard J,

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(UYAR-)

VIND H,

ARKANSAS

New CA125 molecules, monitoring the preser N-PSDB; ABX72616. WPI; 2003-093013/08

cules, useful as a presence of CA125

gold standard for detecting and antigen which can be used for

diagnosing, monitoring or treating patients with cancer or for developing

```
Misc-difference
 /note= "Xaa equals any acids"
      'label= Unknown
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CC comprises 4 genomic exons, each repeat unit comprises 5 genomic exons and CC the carboxy terminal domain comprises 9 genomic exons and CC the carboxy terminal domain comprises 9 genomic exons. The gene for CC CA125 is located on human chromosome 19q 13.2. Also included are isolated CC CA125 repeat domains, nucleic acids (including variants, homologues and CC degenerate versions) encoding CA125 proteins or repeat units, a vector CC comprising the nucleic acid, a cultured cell comprising the vertor, a ccl the CA125 repeat units (or their variants, fragments or sequences of the CA125 repeat units (or their variants, fragments or sequences of cepitope in the receptor-binding domain of CA125 protein, a diagnostic for cepitope in the receptor-binding domain of CA125 protein, a diagnostic for cepitope in the receptor-binding sites) and the levated CA125 antigen (comprising calls with elevated CA125 antigen (comprising commands with elevated CA125 antigen levels or at risk of developing a commands with elevated CA125 repeat unit of the CA125 entigen comprising recombinant CA125 repeat domains including epitope binding sites), a therapeutic vaccine to treat commands with elevated CA125 antigen levels or at risk of developing a combining sites) and an antisense oligonucleotide that inhibits the captesession of CA125 antigen, which can be used for diagnosing, monitoring the presence of CA125 antigen, which can be used for diagnosing, monitoring the presence of CA125 antigen, which can be used for daynosing, monitoring the presence of CA125 antigen, which can be used for developing a vaccine compressed. The molecules are also useful for developing a vaccine compression of CA125 antigen levated cancer. The present sequence is a CA125 repeat protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local S
                                                                                                                                                                                                                                                                                                                              Human; ovarian cancer antigen; proliferative disorder; cancer; tumour; respiratory system disorder; asthma; haematopoietic disorder; skin aging; immune system disorder; AIDS; skin disorder; autoimmune disease; allergy; rheumatoid arthritis; inflammation; neurological disorder; septic shock; Alzheimer's disease; Parkinson's disease; diabetes; angiogenic disorder; atheroseclerosis; cardiovascular disorder; gastrointestinal disorder; epithelial cell proliferation; transplantation; chemotaxis; infection; food additive; wound healing; endocrine disorder; kidney disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAE12634 standard; protein; 526 AA
                                                                                                                                                                                                                                            Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             03-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             AAE12634;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 439
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             repeat domain; and (d) a carboxy terminal domain. The extracellular amin terminal domain comprises 5 genomic exons, the amino terminal extension
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 vaccine against cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            invention relates to a CA125 protein comprising: (a) an extruction relates to a CA125 protein comprising: (a) an extruction retained to a multiper forminal domain. The extracellular forminal extension are the comprision of the compression of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      361
                                                                                                                                                                                                                                        sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene 1 encoded secreted protein fragment,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          μ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         English
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 104; DB 6;
Pred. No. 9.2e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                of the naturally occurring L-amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 439;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ŏ.
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Synthetic
                                                                                                cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     448
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CC AAD20618-AAD20624 represent cDNAs corresponding to 7 human ovarian and CC ovarian cancer associated protein (collectively known as ovarian cancer CC antigens) genes, and AAE12623-AAE12629 represent the proteins they CC encode. AAE12630-AAE12638 represent human ovarian cancer antigenic CC fragments or variants. Ovarian cancer antigens and their corresponding CDNAs are used in the prevention, diagnosis and treatment of diseases CC aschma, haematopoietic disorders, tumours, respiratory system disorders (aschma, haematopoietic disorders, diseases of the immune system, AIDS, CC skin disorders, autoimmune diseases of the immune system, AIDS, CC disease, Parkinson's disease, septic shock, diabetes, atherosclerosis, CC cardiovascular disorders, angiogenic disorders, kidney disorders, according testinal disorders, endocrine disorders and infections. The CC gastrointestinal disorders, endocrine disorders and infections. The CC proteins can also be used to aid wound healing and epithelial cell CC proteins can also be used to aid wound healing and epithelial cell CC proliferation, to prevent skin aging due to sunburn, to maintain organs CC specific for a protein of the invention can be used in alleviating CC specific for a protein of the invention can be used in alleviating CC specific for a protein of the invention can be used in alleviating CC specific for a protein of the invention can be used in diagnostic C immunoassays e.g., enzyme linked immunosorbent assay (ELISA). The DNA of the invention is used in gene therapy. The present sequence represents a CC human ovarian cancer antigenic fragment of the invention
                                      antibody; antigen-binding antibody fragment;
cell-associated CA 125/0772P; monoclonal antibody; cytostatic;
immunostimulant; mediator of lysis; tumour; cell proliferative disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Nucleic acids encoding preventing, diagnosing
                                                                                                                                                                                     CA 125/0772P 3-repeat amino acid sequence SEQ
                                                                                                                                                                                                                                                                   02-DEC-2004
                                                                                                                                                                                                                                                                                                                                                                                                          ADS94302 standard; protein; 748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 10; 427pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2001-639119/73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              17-MAR-2000;
23-AUG-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 SSVLVDGYSPNRNEPLTGNS 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   20;
cervical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  526
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2000US-0227009P.
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                                                                                                                                                                                                                                                               (first entry)
       cancer; uterine
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
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and/or treating ovarian cancer and ovarian cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   <u>.</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 104; DB 4;
Pred. No. 1.1e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mismatches
       cancer; breast cancer; lung cancer;
                                                                                                                                                                                         ID NO:1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Length 526;
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WO2004035537-A2

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CC binding antibody fragment (I), that preferentially binds cell-associated CC (A 125/0772P polypeptide relative to shed CA 125/0772 polypeptide, Also CC asscribed: (I) a monoclonal antibody (II) produced by hybridoma 487; (2) CC a monoclonal antibody that comprising the formal cast deposited in (III); (4) an isolated nucleic acid molecule (III) (5) a pharmaceutical composition comprising an antibody cramaceutical composition comprising an antibody or an antigen-binding antibody fragment that preferentially binds cell-associated (CI); (5) a pharmaceutical composition comprising an antibody or an antigen-binding monoclonal antibody fragment that preferentially binds cell-associated CA 125/0772P polypeptide comprising an antibody, or an antigen-binding monoclonal antibody fragment that preferentially binds cell-associated CA 125/0772P polypeptide comprising an antibody, or an antigen-binding material and a composition comprising an antibody. Or an antigen-binding antibody fragment that composition in a form suitable for administration to a subject; (8) a fusion polypeptide (V) comprising an antibody, or an antigen-binding composition in a form suitable for administration to a subject; (8) a definition of a carrier; (9) and carrier; (1) and (12) a pharmaceutical composition competed (CI), and (13) and (CI), and (13) and (CI), and (CI), and (CI), and (CI) and (CI), and (CI) and (CI), and (CI) and (CI
                                                                                                                                                                                Query Match
Best Local (
                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Novel isolated antibody, or antigen-binding antibody fragment binding with cell-associated CA 125/0772P polypeptide relative to shed CA 125/07772 polypeptide, useful for ameliorating cervical or ovarian cancer
                                                                                                                                                                                                                                                                                              Sequence 748
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          16-OCT-2002; 2002US-0418828P.
10-JUL-2003; 2003US-0485986P.
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691
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                                                                                                                                                                                Similarity
                                   SSVLVDGYSPNRNEPLTGNS
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                                                                                                                                                                            100.0%;
                                                                                                                                         ٥.
                                                                                                                                                                            Score 104; DB 8;
Pred. No. 1.7e-07;
                                                              20
                                                                                                                                         Mismatches
                                                                                                                                                                                                                DB
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                                                                                                                                         0;
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RESULT 15 ADS94303

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CC hinding antibody fragment (1), that preferentially binds cell-associated CC (2A 125/0772p polypeptide relative to shed CA 125/0772 polypeptide. Also CC described: (1) a monoclonal antibody (11) produced by hybridoma 427; (2) a monoclonal antibody that competes with binding of (11); (3) a hybridoma (2C) as deposited in (11); (4) an isolated nucleic acid molecule (111) (2) a hybridoma (2C) (21); (5) a pharmaceutical composition comprising antibody or an antiper-binding antibody fragment that preferentially binds cell-associated CA 125/072P polypeptide relative to shed CA 125/0772P polypeptide relative to shed CA 125/0772P polypeptide, and a carrier; (6) a pharmaceutical composition comprising a monoclonal antibody or an antigen-binding monoclonal antibody fragment that preferentially binds cell-associated CA 125/0772P polypeptide (2C) comprising an antibody or an antigen-binding antibody fragment that preferentially binds cell-associated CA 125/0772P polypeptide (2D) comprising packaging material and a composition of comprising an antibody or an antigen-binding antibody fragment that preferentially binds cell-associated CA 125/0772P relative to shed CA 125/0772P relative to shed CA 125/0772P relative to shed CA 125/0772P polypeptide (8) a composition in a form suitable for administration to a subject; (8) a monoclonal antibody or an antibody or an antigen-binding cell-associated CA 125/0772P relative to shed CA 125/0772P operably linked to a heterologous (125/0772P preferentially binds cell-associated CA 125/0772P relative to shed CA 125/0772P operably linked to a heterologous (125/0772P associated CA 125/0772P relative to shed CA 125/0772P operably linked to a heterologous (125/0772P associated CA 125/0772P relative to shed CA 125/0772P operably linked to a heterologous composition in a monoclonal antibody or antibody or antigen binding antibody or antibody or antibody or antibody or antigen binding cell associated CA 125/0772P related disorder which (12) and (13) and (13) a pharmaceutical composition compris
               Novel isolated antibody, or antigen-binding antibody fragment binding with cell-associated CA 125/0772P polypeptide relative to shed CA 125/0772 polypeptide, useful for ameliorating cervical or ovarian cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present invention describes an isolated antibody, or an antigen-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              15-OCT-2003; 2003WO-US032945
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      annibody, antigen-binding antibody fragment, cell-associated CA 125/0772P; monoclonal antibody; cytostatic; immunostimulant; mediator of lysis; tunour; cell proliferative disorder; cancer; cervical cancer; uterine cancer; breast cancer; lung cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example; SEQ ID NO 2; 153pp; English.
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10-JUL-2003;
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2003US-0485986P
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0;) 0; Gaps	0,	100.0%; Score 104; DB 8; Length 809; 100.0%; Pred. No. 1.8e-07; ative 0; Mismatches 0; Indels	8; 1 07; 0;	8e-1	e 104; . No. 1 smatche	tch 100.0%; Score 104; Itch all Similarity 100.0%; Pred. No. 1.8 20; Conservative 0; Mismatches	00.0 \$ 00.0 \$ ve	•	larity Conse	ch l Simi 20;	Query Match Best Local Similarity Matches 20; Conser	M B Q
			ion.	vent	ıt in	preser	used in the exemplification of the present invention. Sequence 809 AA;	ation	lific	exemp.	n the	used in the exem Sequence 809 AA;	SXC

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Post-processing: Minimum Match 0%
Maximum Match 10
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1: /cgn2 6/ptodata/1

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Listing first 45 summaries
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                         GenCore version 5.1.6 (c) 1993 - 2005 Compus
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US-09-464-879A-312
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US-09-404-879A-312
US-09-667-857-12
US-09-404-236-3459
US-09-489-039A-13839
US-09-499-030A-13839
US-09-171-699-10
US-09-171-699-10
US-09-171-699-10
US-09-171-699-10
US-09-171-281-13
US-09-171-281-13
US-09-171-281-13
US-09-171-281-13
US-09-189-039A-11966
US-09-489-039A-11966
US-09-489-039A-11966
US-09-320-878-4
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                    Sequence
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Sequence
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389, App
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313, App
10, App
11, App
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Matches
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Result

No

3

Database

Maximum Minimum

88

seq

45	44	43	42	41	40	39	38	37	36	35	34	3	32	31	30	29	28
41	41	41	41	41	41	41	41	41	41	41	41	41	41.5	42	42	42	42.5
39.4	39.4	39.4			φ	39.4	39.4	39.4	39.4	39.4	39.4	39.4	39.9	40.4	40.4	40.4	40.9
929	922	746	655	641	468	255	255	236	236	213	201	201	318	721	422	328	428
4	4	4	4	4	4	4	w	4	w	4	4	w	4	4	4.	4	4
US-09-328-352-4591	US-09-489-039A-8938	US-09-248-796A-19979	US-09-248-796A-14460	US-09-252-991A-26329	US-09-248-796A-27314	US-09-515-311-2	US-09-015-734-2	US-09-515-311-7	US-09-015-734-7	US-09-489-039A-14310	US-09-515-311-12	US-09-015-734-12	US-09-328-352-6869	US-09-328-352-7781	US-09-831-630-10	US-09-902-540-10796	US-09-538-092-531
Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence	Sequence
4591, Ap	8938, Ap	19979, A	14460, A	26329, A	27314, A	Appli	2, Appli	7, Appli	7, Appli	14310, A	•	12, Appl	6869, Ap	7781, Ap	10, Appl	10796, A	531, App

Title: Perfect score:

Scoring table:

ALIGNMENTS

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; LENGTH: 438
; TYPE: PRT
; ORGANISM: Homo s
US-09-404-879A-390
APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon E.
APPLICANT: King, Gordon E.
APPLICANT: Fling, Steven P.
APPLICANT: Fling, Steven P.
APPLICANT: Retter, Marc W.
APPLICANT: Reed, Steven G.
APPLICANT: Vedvick, Thomas S.
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THISTITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C5
CURRENT APPLICATION NUMBER: US/09/667,857
CURRENT FILING DATE: 2000-09-20
NUMBER OF SEQ ID NOS: 455
                                                                                                                                                                                                                                                                                                                                                                                                      US-09-667-857-390
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APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C2
CURRENT APPLICATION NUMBER: US/09/404,879A
CURRENT APPLICATION NUMBER: US/09/404,879A
CURRENT FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 393
SOFTWARE: FastSEQ for Windows Version 3.0
LENGTH 438
                                                                                                                                                                                                                                                                                                                                       Patent No. 6699664
GENERAL INFORMATION:
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19; Conserv
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Pred. No. 1.8e-07;
0; Mismatches 1;
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APPLICANT: King, Gordon E.

APPLICANT: Algate, Paul A.

APPLICANT: Reing, Steven P.

APPLICANT: Retter, Marc W.

APPLICANT: Fanger, Gary Richard

APPLICANT: Reed, Steven G.

APPLICANT: Vedvick, Thomas S.

APPLICANT: Carter, Darrick

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND

TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER

FILE REFERENCE: 210121.462C5

CURRENT APPLICATION NUMBER: US/09/667,857

CURRENT FILING DATE: 2000-09-20

NUMBER OF SEO ID NOS: 455

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 389
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US-09-404-879A-389
, Sequence 389, Application US/09404879A
; Patent No. 6468546
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US-09-667-857-389
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; ORGANISM: Homo sapiens US-09-667-857-390
US-09-667-857-389
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: Mitcham, Jennifer L.
APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon E.
APPLICANT: King, Gordon E.
APPLICANT: King, Gordon E.
APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C2
CURRENT APPLICATION NUMBER: US/09/404,879A
CURRENT FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 393
SOFTWARE: PastSEQ for Windows Version 3.0
SEQ ID NO 389
SEQ ID NO 389
                                                                                                                                                                                                                                                                                                                          APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
APPLICANT: Fling, Steven P.
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary Richard
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Best Local Similarity 95.0
Matches 19; Conservative
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SEQ ID NO 390
LENGTH: 438
TYPE: PRT
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                                         LENGTH: 833
TYPE: PRT
                  ORGANISM: Homo sapiens
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Local Similarity 95.0%;
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Pred. No. 1.8e-07;
0; Mismatches 1
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GENERAL INFORMATION:
APPLICANT: Mitcham, Jennifer Lynn
APPLICANT: King, Gordon E.
ITITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
ITITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
CURRENT APPLICATION NUMBER: US/09/338,933
CURRENT FILING DATE: 1999-06-23
NUMBER OF SEQ ID NOS: 312
SOFTMARE: FastSEQ for Windows Version 3.0
SEQ ID NO 312
LENGTH: 914
TYPE: PRT
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                                                    RESULT 7
US-09-667-857-312
                                                                                                                                                                                                                                                                         ; ORGANISM: Homo sapien US-09-338-933-312
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US-09-404-879A-312
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APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon E.
APPLICANT: King, Gordon E.
APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C2
CURRENT APPLICATION NUMBER: US/09/404,879A
CURRENT APPLICATION NUMBER: US/09/404,879A
NUMBER OF SEQ ID NOS: 393
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 312
Sequence 312, Application US/09667857 Patent No. 6699664 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence 312, Application US/09404879A Patent No. 6468546
                                                                                                                                                                                                                    Query Match
Best Local (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 312,
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Best Local
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TYPE: PRT
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Local Similarity 95.0%;
es 19; Conservarion
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                                                                                                                                836 SSVLVDGYFPNRNEPLTGNS
                                                                                                                                                    1 SSVLVDGYSPNRNBPLTGNS 20
                                                                                                                                                                                                   l Similarity
19; Conserv
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95.0%;
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Pred. No. 4.2e-07;
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Jennifer

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APPLICANT: ALLY,
APPLICANT: Algate, Paul A.
APPLICANT: Fling, Steven P.
APPLICANT: Retter, Marc W.
APPLICANT: Retter, Marc W.
APPLICANT: Read, Steven G.
APPLICANT: Read, Steven G.
APPLICANT: Vedvick, Thomas S.
APPLICANT: Vedvick, Thomas S.
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION INMBER: US/09/667,857
CURRENT APPLICATION NUMBER: US/09/667,857
CURRENT FAILING DATE: 2000-09-20
NUMBER OF SEQ ID NOS: 455
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 312
LENGTH: 914
TYPE: PRT
ORGANISM: Homo sapien
US-09-667-857-312
94.2%; Score 98; DB 4; Length 914;
TYPE: TRIE
TORGANISM: Homo sapien

94.2%; Score 98; DB 4; Length 914;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 4, Application US/09428517

Patent No. 6251636

GENERAL INFORMATION:

APPLICANT: Betlach, Mary C.

APPLICANT: Shah, Sanjay Krishnakant
APPLICANT: McDaniel, Robert

APPLICANT: McDaniel, Robert

APPLICANT: McDaniel, ROBERT

APPLICANT: MCDANIEL STANDOLIDE POLYKETIDE SYNTHASE

FILE OF INVENTION RECOMBINANT OLEANDOLIDE POLYKETIDE SYNTHASE

FILE REPERENCE: 30062-20029.00

CURRENT APPLICATION NUMBER: US/09/428,517

CURRENT APPLICATION NUMBER: 60/120,254

EARLIER APPLICATION NUMBER: 60/120,254

EARLIER APPLICATION NUMBER: 60/106,100

EARLIER FILING DATE: 1999-10-29

NUMBER OF SEQ ID NOS: 12

COCETANDE: DATE: 1998-10-29

NUMBER OF SEQ ID NOS: 12
                      US-09-40-236-3459

US-09-40-236-3459

; Sequence 3459, Application US/09540236

; Patent No. 6673910
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US-09-428-517-4
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GENERAL INFORMATION:
                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                     OTHER INFORMATION: Description of Artificial Sequence: Recombinant OTHER INFORMATION: Oleandolide PKS
                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ENGTH: 3519
                                                                                                                                                            3401 VLVDVYPPGRQEPVFG 3416
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Pred. No.
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87;
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                                                                                                                                            ; STRANDEDNESS:
; TOPOLOGY: LINEAR
; MOLECULE TYPE: PROTEIN
US-08-464-340A-2
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US-08-464-340A-2
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US-09-540-236-3459
                                                                   Query Match 43.3%;
Best Local Similarity 47.4%;
Matches 9; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUMBER OF SEQ ID NOS: 3840
SEQ ID NO 3459
LENGTH: 2142
TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match 45.2%; Score 47; 1
Best Local Similarity 44.4%; Pred. No. 1.
Matches 8; Conservative 3; Mismatche
                                                                                                                                                                                                                                                                                                                                                                                                    APPLICATION NUMBER: US/08/464,340A
FILING DATE: June 5,1995
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/08449
FILING DATE: 28 JUL 1994
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Gary L. Breton et al.
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO MORAXELLA CATARI
TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 2709.2005-001
CURRENT APPLICATION NUMBER: US/09/540,236
CURRENT FILING DATE: 2000-04-04
                                                                                                                                                                                                                                                                            TELEFAX: 201-994-1744
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER: IBM PS/2
OPERATING SYSTEM: MS-DOS
SOFTWARE: WORD PERFECT 5.1
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                         SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 INCH DISKETTE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: LI, ET AL.
TITLE OF INVENTION: HU
NUMBER OF SEQUENCES: 1:
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                      LENGTH:
                                                                                                                                                                                                                                                                                                                                                   NAME: FERRARO, GREGORY D.
REGISTRATION NUMBER: 36,134
REFERENCE/DOCKET NUMBER: 32
                                                                                                                                                                                                                                                                                                               TELEPHONE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADDRESSEE: CARELLA, BYRNE, BAIN, GILFILLAN ADDRESSEE: CECCHI, STEWART & OLSTEIN
315 TLLVDGAAAGRRKPGAGNS 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         105 SIAIGGGKPNRNQPQDNN 122
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                                                                                                                                                                                                                      H: 513 AMINO ACIDS
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NEW JERSEY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SVLVDGYSPNRNEPLTGN 19
                              SVLVDGYSPNRNEPLTGNS
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                                                                   ; Score 45;
; Pred. No.
4; Mismatc
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                                                                         Mismatches
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57;
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~~ 7; Indels
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                                                                                                          Length 513;
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Sequence 10288, Application US/09949016

Patent No. 681239

GENERAL INFORMATION:
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSITILE OF INVENTION: WITH HUMAN DISEASE, METHODS OF FILE REFERENCE: CLO01307

CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 09/241,755
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-30
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR APPLICATION NUMBER: 60/237,768
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEG ID NOS: 207012
SOFTWARE: FastSEG for Windows Version 4.0
SEG ID NO 10288
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PCT-US94-08449A-2
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                                                                                                                                                                                                         COMPUTER: IBM PS/2
OPERATING SYSTEM: MS-DOS
SOFTWARE: WORD PERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/0844:
FILING DATE: SUBMITTED HEREWITH
CLASSIFICATION: DATA:
APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
                                       TELEFAX: 201-994-1744
INFORMATION FOR SEQ ID NO: 2:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 INC
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STREET: 7 CITY: ROSELAND
CTATE: NEW JERSEY
TICA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: LI, ET AL.
TITLE OF INVENTION: POI
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
SEQUENCE CHARACTERISTICS:
LENGTH: 513 AMINO ACIDS
                                                                                 TELEPHONE: 201-994-1700
                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION:
                                                                                                                        NAME: FERRARO, GREGORY D.
REGISTRATION NUMBER: 36,134
REFERENCE/DOCKET NUMBER: 325800-105
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COUNTRY: U
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE: CARELLA, BYRNE, BAIN, GILFILLAN, ADDRESSEE: CECCHI, STEWART & OLSTEIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   43.3%; Score 45; DB
47.4%; Pred. No. 57;
                                                                                                                                                                                                                                                                                                                   PCT/US94/08449A
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OF DETECTION AND USES THEREOF
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US-09-171-699-10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          RESULT 13
US-09-489-039A-13839
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Patent No. 6448389
GENERAL INFORMATION:
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LENGTH: 811
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                GENERAL INFORMATION:
APPLICANT: Gary Breton et. al
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match 43.3%;
Best Local Similarity 47.4%;
Matches 9; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FILE REFERENCE: 2709.2004001
CURRENT APPLICATION NUMBER: US/09/489,039A
CURRENT FILING DATE: 2000-01-27
PRIOR APPLICATION NUMBER: US 60/117,747
PRIOR FILING DATE: 1999-01-29
NUMBER OF SEQ ID NOS: 14342
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA TITLE OF INVENTION: PNEUMONIAE FOR DIAGNOSTICS AND THERAPEUTICS FILE REFERENCE: 2709.2004001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
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COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/171,699
FILING DATE: 19-Jan-1999
CLASSIFICATION: <UNknown>
PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Local
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                                                                                                                                                                                                                                                                                                                      Kari, Csaba
TITLE OF INVENTION: No. 6448389el Cytomegalovirus DNA Constructs
Uses Therefor
                                                                                                                                                                                                                                                                                  CORRESPONDENCE ADDRESS:
ADDRESSEE: Howson and Howson
                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: The Wistar Institute of, Anatomy & Biology
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    315 TLLVDGAAAGRRKPGAGNS 333
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       750 YSPNINIPINGN 761
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8; Conserv
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                                                                                                                                                                                                                       STREET: Spring House Corporate Center, P.O. Box CITY: Spring House STATE: Pennsylvania
                                                                                                                                                                                        COUNTRY: USA
ZIP: 19477
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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Berencsi, Kla
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                                                                                                                                                                                                                                                                                                                                                                                                  Klara
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APPLICATION NUMBER: US 60/015,717
FILING DATE: 23-APR-1996
ATTORNEY/AGENT INFORMATION:
NAME: KODET INFORMATION:
NAME: KODET INFORMATION:
REGISTRATION NUMBER: 33,980
REFERENCE/DOCKET NUMBER: WST66APCT
TELECOMMUNICATION INFORMATION:
TELEPHONE: 215-540-9200
TELEPHONE: 215-540-9200
TELEPHONE: 215-540-9218
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 1048 amino acids
TYPE: amino acids
TYPE: amino acid
TYPE: TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 10:
US-09-171-699-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 15

US-09-696-115B-17
; Sequence 17, Application US/09696115B
; Patent No. 6660497
; Patent No. 6660497
; GENERAL INFORMATION:
   APPLICANT: Candas, Mehmet
; APPLICANT: Candas, Mehmet
; TITLE OF INVENTION: Coxin receptor BT-R2
; TITLE OF INVENTION: Loxin receptor BT-R2
; FILE REFERENCE: 52418-20003.00
; CURRENT APPLICATION NUMBER: US/09/696,115B
; CURRENT APPLICATION NUMBER: US/09/696,115B
; CURRENT FILING DATE: 1999-10-26
; PRIOR FILING DATE: 1999-10-26
; NUMBER: OS SEO ID NOS: 18
                                                                                                                                                                                                                                                                                                      SOFTWARE: PatentIn version 3.0
SEQ ID NO 17
LENGTH: 1715
TYPE: PRT
ORGANISM: B. mori
US-09-696-115B-17
Search completed: October 27, 2005, 17:34:31 Job time: 18.3953 secs
                                                                                                       밁
                                                                                                                                                                                                    Query Match 42.3%; Score 44; DB 4; Length 1715; Best Local Similarity 61.5%; Pred. No. 3.4e+02; Matches 8; Conservative 3; Mismatches 2; Indels
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                                                                                               1028 YAPDRDEPDTDNS 1040
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Result
No.
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Maximum DB seq length: 200000000
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Maximum Match 10
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Perfect score:
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Match
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104
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... /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
... /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
... /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*
... /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*
... /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
... /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
... /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
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... /cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*
... /cgn2_6/ptodata/2/pubpaa/US11A_PUBCOMB.pep:*
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5 US-10-612-090-2

5 US-10-612-090-13

5 US-10-383-368-4

0 US-09-965-738-300

0 US-09-984-441-483

0 US-09-9907-969-483

4 US-10-198-053-483

5 US-10-198-053-483

10 US-10-198-053-483

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10 US-09-965-738-148
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Sequence 14, Appl
Sequence 2, Appli
Sequence 13, Appli
Sequence 4, Appli
Sequence 400, App
Sequence 483, App
Sequence 483, App
Sequence 19, Appl
Sequence 19, Appl
Sequence 19, Appl
Sequence 19, Appl
Sequence 148, App
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ALIGNMENTS

US-10-612-090-14
; Sequence 14, Application US/10612090
; Publication No. US20040057952A1
; GENERAL INFORMATION:

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RESULT 2
US-10-612-090-2
; Sequence 2, Application US/10612090
; Publication No. US20040057952A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                            ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-612-090-14
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SEQ ID NO 14
LENGTH: 20
                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: ImmunoGen, Inc.
TITLE OF INVENTION: ANTIBODIES TO NON-SHED MUC1 AND MUC16, AND USES THEREOF
FILE REFERENCE: A8340
CURRENT APPLICATION NUMBER: US/10/612,090
CURRENT FILING DATE: 2003-07-03
PRIOR APPLICATION NUMBER: US 60/393,094
PRIOR FILING DATE: 2002-07-03
NUMBER OF SEQ ID NOS: 33
NUMBER OF SEQ ID NOS: 33
                                                                                                                                                                                                       Matches
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Best Local :
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                                                                                                                              h 100.0%; Score 104; DB 15;
Similarity 100.0%; Pred. No. 9.3e-10;
20; Conservative 0; Mismatches 0;
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US-10-612-090-13
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-612-090-2
                                                                                                                                                                                                                                                                       US-10-383-368-4
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: ImmunoGen, Inc.
TITLE OF INVENTION: ANTIBODIES TO NON-SHED MUC1 AND MUC16,
FILE REFERENCE: A8340
CURRENT APPLICATION NUMBER: US/10/612,090
CURRENT FILING DATE: 2003-07-03
PRIOR APPLICATION NUMBER: US 60/393,094
PRIOR PRILING DATE: 2002-07-03
NUMBER OF SEQ ID NOS: 33
SOFTWARE: PatentIn version 3.2
SEQ ID NO 13
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TITLE OF INVENTION: ANTIBODIES TO NON-SHED MUC1 AND MUC16, AND USES THEREOF
FILE REFERENCE: A8340
CURRENT APPLICATION NUMBER: US/10/612,090
CURRENT FILING DATE: 2003-07-03
PRIOR APPLICATION NUMBER: US 60/393,094
PRIOR FILING DATE: 2002-07-03
NUMBER OF SEQ ID NOS: 33
SOFTWARE: PATENTIN Version 3.2
SEQ ID NO 2
SEQ ID NO 2
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Publication No.
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Best Local Similarity
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Best Local Similarity
APPLICANT: Young, Paul E.
APPLICANT: Ebner, Reinhard
APPLICANT: Strovel, Jeffrey W.
APPLICANT: Strovel, Jeffrey W.
TITLE OF INVENTION: Cancer-Linked Gene as Target for Chemotherapy
FILE REFERENCE: 689290-123
CURRENT APPLICATION NUMBER: US/10/383,368
CURRENT FILING DATE: 2003-03-07
PRIOR APPLICATION NUMBER: US 60/362,527
PRIOR FILING DATE: 2002-03-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            NAME/KEY: MISC FEATURE
LOCATION: (1)...(1)
OTHER INFORMATION: Glutathione S-transferase fusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: Fusion protein FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TYPE: PRT ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ENGTH: 108
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   100.0%; Score 104; DB 15; ilarity 100.0%; Pred. No. 6.6e-09; Conservative 0; Mismatches 0;
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APPLICANT: O'Brien, Timothy
APPLICANT: O'Brien, Timothy
TITLE OF INVENTION: Repeat Sequences of the CA125 Gene and The
TITLE OF INVENTION: Therapeutic Interventions
FILE REFERENCE: 40715-258841
CURRENT APPLICATION NUMBER: US/09/965,738
CURRENT FILING DATE: 2001-09-27
PRIOR APPLICATION NUMBER: US 60/284,175
PRIOR APPLICATION NUMBER: US 60/284,175
PRIOR FILING DATE: 2001-04-17
NUMBER OF SEQ ID NOS: 306
SOFTWARE: PatentIn version 3.0
SEQ ID NO 300
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-965-738-300
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                                                                                                                                 US-09-884-441-483
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                                                        Query Match
Best Local S
Matches 20
                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/884,441
CURRENT FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 489
SOFTWARE: Fast-SEQ for Windows Version 3.0
SEQ ID NO 483
LENGTH: 438
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 300, Application US/09965738 Publication No. US20030143667A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                   Patent No. US20020119158A1
GENERAL INFORMATION:
APPLICANT: Algate, Paul A.
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C7
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Best Local Similarity
Matches 20; Conserv
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1 SSVLVDGYSPNRNEPLTGNS 20
                                                        h 100.0%; Score 104; DB 9; Similarity 100.0%; Pred. No. 3.3e-08; 20; Conservative 0; Mismatches 0;
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Similarity 100.0%;
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Pred. No. 1.1e-08;
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Pred. No. 2e-08;
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                                                                                             Length 438;
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SSVLVDGYSPNRNEPLTGNS 379

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RESULT 8
US-10-198-053-483
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-198-053-483
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-907-969-483
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RESULT 9
                                                                                                                                                                                                                                                      FILE REFERENCE: 210121.462C9
CURRENT APPLICATION NUMBER: US/10/198,053
CURRENT FILING DATE: 2002-07-17
NUMBER OF SEQ ID NOS: 624
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 483
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 483, Application US/10198053
Publication No. US20030124140A1
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 483
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APPLICANT:
APPLICANT:
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APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                               TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Bangur, Chaitanya S.
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
APPLICANT: Hill, Paul
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CURRENT FILING DATE: 2001-07-17
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Match 100.0%; Score 104; DB 10; Local Similarity 100.0%; Pred. No. 3.3e-08;
                                                                                                                                      Local
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                                                                          1 SSVLVDGYSPNRNEPLTGNS 20
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                                                                                                                  Similarity 100.
20; Conservative
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Fling, Steven
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                                                                                                                                  100.0%;
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                                                                                                                  Score 104; DB 14;
Pred. No. 3.3e-08;
Mismatches 0;
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                                                                                                                                                  Length 438;
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RESULT 10
US-10-860-790-483
; Sequence 483, Application US/10860790
; Publication No. US20050031634A1
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; Sequence 19, Application US/10333900
; Publication No. US20040010121A1
; GENERAL INFORMATION:
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US-09-965-738-148
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-860-790-483
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Sequence 148, Application US/09965738
Publication No. US20030143667A1
GENERAL INFORMATION:
APPLICANT: O'Brien, Timothy
TITLE OF INVENTION: Repeat Sequences of the CA125 Gene of the CA125 Gene of the CA125 Gene of the CA125 Gene of the Reference: 40715-258841
CURRENT APPLICATION NUMBER: US/09/965,738
CURRENT APPLICATION NUMBER: US 60/284,175
PRIOR APPLICATION NUMBER: US 60/284,175
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APPLICANT: Hill, Paul
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C11
FILE REFERENCE: 210121.462C11
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TITLE OF INVENTION: 7 Human Ovarian and Ovarian Cancer Associated Proteins
FILE REFERENCE: PA006FCT
CURRENT APPLICATION NUMBER: US/10/333,900
CURRENT FILING DATE: 2001-03-15
PRIOR FILING DATE: 2000-08-23
PRIOR FILING DATE: 2000-08-23
PRIOR APPLICATION NUMBER: 60/190,076
PRIOR PRIOR APPLICATION NUMBER: 60/190,076
PRIOR FILING DATE: 2000-03-17
NUMBER OF SEQ ID NOS: 34
SOFTWARE: Patentin Ver. 2.0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION NUMBER: US/10/860,790 CURRENT FILING DATE: 2004-06-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQ ID NOS: 624
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TYPE: PRT
ORGANISM: Homo sapiens
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nes 20; Conservative (
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Fanger, Gary R.
Hill, Paul
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Pred. No. 3.3e-08;
0; Mismatches 0;
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                                                                                                               Their Use for Diagnostic
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RESULT 13
US-10-333-900-30
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US-10-858-412-226
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; ORGANISM: Homo sapiens
US-09-965-738-148
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Publication No. US20040010121A1
GENERAL INFORMATION:
APPLICANT: Human Genome Sciences, Inc.
TITLE OF INVENTION: 7 Human Ovarian and Ovarian Cancer Associated Proteins
FILE REFERENCE: PA006PCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQ ID NO 226
LENGTH: 456
TYPE: PRT
ORGANISM: Homo sapien
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Publication No. US20
GENERAL INFORMATION:
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NUMBER OF SEQ ID NOS: 306
SOFTWARE: PatentIn version 3.0
SEQ ID NO 148
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Best Local S
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                                                                                                                                            SEQ ID NO 30
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TITLE OF INVENTION: Compositions, Splice Variants and Methods Relating to Ovarian:
TITLE OF INVENTION: Nucleic Acids and Proteins
FILE REFERENCE: DEX-0488
FILE REFERENCE: DEX-0488
CURRENT APPLICATION NUMBER: US/10/858,412
CURRENT FILING DATE: 2004-06-01
PRIOR APPLICATION NUMBER: US 60/474,854
PRIOR APPLICATION NUMBER: US 60/474,854
PRIOR FILING DATE: 2003-05-30
NUMBER OF SEQ ID NOS: 240
                                                                                                                                                                                 PRIOR APPLICATION NUMBER: 60/227,009
PRIOR FILING DATE: 2000-08-23
PRIOR APPLICATION NUMBER: 60/190,076
PRIOR FILING DATE: 2000-03-17
NUMBER OF SEQ ID NOS: 34
                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/10/333,900 CURRENT FILING DATE: 2001-03-15
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FEATURE:
NAME/KEY: SITE
LOCATION: (116)
                                                                                                                                                                SOFTWARE: PatentIn Ver.
                                                     LENGTH: 526
TYPE: PRT
ORGANISM: Homo sapiens
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US-10-142-515-4
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US-10-243-243A-4
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CURRENT FILING DATE: 2002-09-19
PRIOR APPLICATION NUMBER: US 10/142,515
PRIOR FILING DATE: 2002-05-09
PRIOR APPLICATION NUMBER: PCT/US02/14768
PRIOR FILING DATE: 2002-05-09
PRIOR APPLICATION NUMBER: US 60/290,480
PRIOR FILING DATE: 2001-05-11
NUMBER OF SEQ ID NOS: 10
SOFTWARE: Patentin version 3.1
                                                                                                              PRIOR APPLICATION NUMBER: US 60/290,480
PRIOR FILING DATE: 2001-05-11
NUMBER OF SEQ ID NOS: 11
SOFTWARE: Patentin version 3.1
SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                Sequence 4, Application US/10142515
Publication No. US20030078399A1
GENERAL INFORMATION:
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                                                                                                                                                                                                                                                               APPLICANT: SLOAN-KETTERING INSTITUTE FOR CANCER RESEARCH
APPLICANT: Lloyd, Kenneth O.
APPLICANT: Yin, Beatrice W.T.
TITLE OF INVENTION: Nucleic Acid Sequence Encoding Ovarian Antigen,
FILE REFERENCE: 649-A-US
                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/10/142,515
CURRENT FILING DATE: 2002-07-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Lloyd, APPLICANT: Yin,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: Nucleic Acid Sequence Encoding Ovarian Antigen, CA125, and Uses FILE REFERENCE: 649-B
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OTHER INFORMATION: Deduced amino acid sequence of CA125/MUC16A (B4), Part Three
                                                       LENGTH: 583
TYPE: PRT
ORGANISM: Human Being
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FEATURE:
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NAME/KEY: MISC_FEATURE LOCATION: (1)...(583)
                                        FEATURE:
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Yin, Beatrice W.T.
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Pred. No. 4.1e-08;
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GenCore version 5.1.6 (c) 1993 - 2005 Compugen

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Minimum
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PIR 79:*
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ALIGNMENTS

acyltransferase; ketoacylsynthase; ketoreductase; thio:

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complement C3 precursor - guinea pig N;Contains: alternative-complement.pathway C3/C5 convertase (EC 3.4.21.47) C3b subunit; (C;Species: Cavia porcellus (guinea pig) C;Date: 07-Feb-1992 #sequence revision 07-Oct-1994 #text_change 09-Jul-2004 C;Accession: A37156; S03375; A20342; D20342; C20342; A31222
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Keywords: antibiotic biosynthesis; carrier protein
F;59-462/Domain: 3-oxoacyl-[acyl-carrier-protein] synthase I homology <AMT1>
F;570-851/Domain: [acyl-carrier-protein] S-malonyltransferase homology <AMT1>
F;1202-1381/Domain: short-chain alcohol dehydrogenase homology <AMT1>
F;1202-1381/Domain: acyl carrier protein homology <ACP1>
F;1489-1560/Domain: acyl carrier protein homology <ACP1>
F;1708-2111/Domain: 3-oxoacyl-[acyl-carrier-protein] synthase I homology <AMT2>
F;2221-2502/Domain: [acyl-carrier-protein] S-malonyltransferase homology <AMT2>
F;2858-3037/Domain: short-chain alcohol dehydrogenase homology <ACP1>
F;3143-3214/Domain: acyl carrier protein homology <ACP2>
F;3143-3214/Domain: oleoyl-[acyl-carrier-protein] hydrolase homology <ACPH>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Molecule type: DNA
A;Residues: 1-3519 <SWA>
A;Ricession: SA1729
A;Ricession: SA1729
A;Title: Characterisation of Streptomyces antibioticus gene encoding a type I polyketic
A;Reference number: SA1729; MUID:94150470; PMID:8107683
A;Accession: S41729
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A;Residues: 1683-3238,3273-3303,'K',3305-3407,'T',3409-3462,'Y',3464-3516,'E',3518-3519
A;Cross-references: EMBL:L09654
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    polyketide synthase type I - Streptomyces antibioticus N;Contains: acyl carrier protein; acyltransferase; ketc C;Species: Streptomyces antibioticus C;Date: 13. Jun-1995 #sequence_revision 06-Dec-1996 #tex C;Accession: S43048; S41729 C;Accession: S43048; S41729 R;Swan, D.G.; Rodriguez, A.M.; Vilches, C.; Mendez, C.; submitted to the EMBL Data Library, February 1993 submitted to the EMBL Data Library, February 1993
                                                                                                                                                                                                                RESULT 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Reference number: $43048
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Start codon: GTG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Accession: S43048
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Pred. No. 40;
1; Mismatches
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F;23-671,76-1666/Product: complement C3 #status predicted <C3b>
F;23-671,754-1666/Product: complement C3b #status predicted <C3b>
F;676-1666/Product: complement C3 #status predicted <C3b>
F;676-1566/Product: complement C3 alpha chain #status predicted <C3b>
F;676-753/Product: C3a anaphylatoxin #status predicted <C3b>
F;754-1666/Product: C3dk fragment #status predicted <C3b>
F;951-1308/Product: C3dk fragment #status predicted <C3b>
F;1007-1308/Product: C3dk fragment #status predicted <C3D>
F;1429-1461/Region: properdin binding F;1429-1461/Region: properdin binding F;153-754/Cleavage site: Arg-Ser (C3 convertage) #status predicted F;1308-1309/Cleavage site: Arg-Ser (C3 convertage) #status predicted F;1308-1309/Cleavage site: Arg-Ser (Complement factor I) #status predicted F;1308-1306/Cleavage site: Arg-Ser (complement factor I) #status predicted F;1308-1309/Cleavage site: Arg-Ser (complement factor I) #status 
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A;Title: Molecular basis of complement C3 deficiency in guinea pigs.
A;Reference number: A37156; MUID:90307998; PMID:1973176
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    C;Comment: Complement C3 contains two chains, formed by removal of four residues and lin alternative complement pathways, releases the C3a anaphylatoxin from the amino end of trative-complement-pathway C3/C5 convertase.

C;Comment: C3a anaphylatoxin is a vasoactive peptide and a mediator of inflammation.

C;Comment: C3b, with its highly reactive thiol group, binds to the surface of foreign particles of the complement-pathway C3/C5 convertase. The activity of C3b is regulated by proceedings of the major site of synthesis of this plasma protein is the liver.

C;Supperfamily: alpha-2-macroglobulin
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A;Residues: 993-1012_1014-1017,'E',1019-1030,'Y' <TH2>
A;Residues: 993-1012_1014-1017,'E',1019-1030,'Y' <TH2>
R;Roldberger, G.; Thomas, M.L.; Tack, B.F.; Williams, J.; Colten, H.R.; Abraham, G.N
J. Biol. Chem. 256, 12617-12619, 1981
J. Biol. Chem. 256, 12617-12619, 1981
A;Title: NH2-terminal structure and cleavage of guinea pig pro-C3, the precursor of A;Reference number: A20342; MUID:82075767; PMID:6458605
A;Accession: C20342
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Protein Seq. Data Anal. 1, 473-478, 1988
A;Title: Amino acid sequence of guinea pig C3a anaphylatoxin.
A;Reference number: S03375; MUID:89113342; PMID:3064079
A;Accession: S03375
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A; Residues: 1-1666 < AUE>
    regulatory protein N;Alternate names:
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A; Residues: 23-38 <GOL>
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A;Title: Identification and alignment of a thiol ester site
A;Reference number: A90479; MUID:83178889; PMID:6838833
A;Accession: A20342
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A;Residues: 676-730,'N',732-752 <GER>
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B6, 96-106,
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yeast (Saccharomyces
n YI8277.10c; protein
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                                        A;Status: preliminary; translated
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ACS/YY
alpha-D-mannosidase (EC 3.2.1.-) - mouse
C;Species: Mus musculus (house mouse)
C;Species: Mus musculus (house mouse)
C;Date: 27-Jan-1998 #sequence_revision 13-Mar-1998 #text_change 09-Jul-2004
C;Accession: JC5799
C;Accession: JC5799
C;Accession: JC5799
C;Accession: JC5799
Biochem. Biophys. Res. Commun. 241, 439-445, 1997
Biochem. Biophys. Res. Commun. 241, 439-445, 1997
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A;Cross-references: SGD:S0001381; MIPS:YIL119c
A;Map position: 9L
                                                                                                                         hypothetical protein W01C8.3 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #tcC;Accession: T26044
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Experimental source: testis
C;Comment: This protein serves as a marker for the late stages of type A sperma togonia
C;Keywords: glycoprotein; glycosidase; hydrolase
F;226,249,294,336,511,528,620,652,818/Binding site: carbohydrate (Asn) (covalent) #statu
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A;Residues: 1-1018 <HIR>
A;Cross-references: UNIPROT:O54782; DDBJ:AB006458; NID:g2766160; PIDN:BAA24266.1; PID:dl(
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Biochem. Biophys. Res. Commun. 241, 439-445, 1997
A;Title: Stage-specific expression of a mouse homologue of the porcine 135kDa alpha-D-mar
A;Reference number: JC5799; MUID:98086369; PMID:9425289
A;Accession: JC5799
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Mol. Cell. Biol. 11, 3894-3904, 1991
A;Title: Overexpression of RPII, a novel inhibitor of the A;Reference number: A41218; MUID:91304380; PMID:1649384
A;Accession: A41218
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A; Reference number: A; Accession: T26044
                           A; Description: The sequence A; Reference number: Z20142
                                                   submitted to the EMBL Data Library, November 1995 A;Description: The sequence of C. elegans cosmid
                                                                                                         R;Nhan,
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A;Residues: 1-36,'K',38-70,'p',74-90,'V',92-169,175-239,'SNS',243-247,'NNSNNN',248-407
A;Cross-references: GB:842682; NID:g1679961; PIDN:AAB39843.1; PID:g233044
C;Genetics:
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A;Residues: 1-407 <HAM>
A;Cross_references: UNIPROT:P23250; GB:Z47047;
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A; Accession: S49890
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66.7%;
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Pred. No. 10;
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GB/EMBL/DDBC

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A;Residues: 1-1076 <NHA>
A;Cross-references: EMBL
C;Genetics:
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A;Title: Subunit VII of ubiquinol:cytochrome-c oxidoreductase from Neurospora A;Reference number: Z23142; MUID:97156980; PMID:9003361
A;Accession: T46746
        В
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A;Title: Isolation, characterization,
A;Reference number: JC5919
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A; Introns: 59/3;
                                  δ
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A; Residues: 1-513 < SUA>
                                                                                                                                                                                                                                                                                                                                                                                          C;Species: Homo sapiens (man)
C;Date: 28-Mar-1998 #sequence_revision 28-Mar-1998 #text_change 09-Jul-2004
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C; Species: Homo sapiens (man
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A;Molecule type: mRNA
A;Residues: 1-107 <LAB>
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C;Dats: 18-Feb-2000 #sequence_revision 18-Feb-2000 #text_change 09-Jul-2004
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C;Comment: This plasma membrane protein has six transmembrane domains, and is involved i
                                                                                                                                                                                                                                                                                                    A;Accession: JC5920
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                                                                                                                                                                                                                                                                                                                                                                                    C; Accession: JC5920
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C; Accession: T46746
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Best Local S
Matches 9
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Best Local S
Matches 8
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Matches
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                                       SVLVDGYSPNRNEPLTGNS 20
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                                                                                                                                                                                                                                                                                                                                P.; Zeng, Z.; Shell, B.K.; Carter, K.C.; Li, ommun. 242, 675-681, 1997 acterization, and mapping of two human potass
                                                                                                                                           channel protein drkl
                                                                                         43.3%;
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63.6%;
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Pred. No.
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Pred. No. 4.5;
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28;
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Best Local
                                                                                                           Matches
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A; Gene: STY4484
C; Superfamily: formate deh:
C; Keywords: oxidoreductase
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A;Molecule type: DNA
A;Residues: 1-715 <PAR>
A;Cross-references: UNIPROT:Q8Z1Q0; GB:AL513382;
C;Genetics:
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S.; Moule, S.; O'Gaora, P.
Nature 413, 848-852, 2001
A;Authors: Parry, C.; Quail, M.; Rutherford, K.; Simmonds, M.;
A;Title: Complete genome sequence of a multiple drug resistant
A;Reference number: ABOS02; MUID:21534947; PMID:11677608
A;Accession. AE1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               formate dehydrogenase (EC 1.2.1.2) - Salmonella enterica subsp. enterica Scrovar C;Species: Salmonella enterica subsp. enterica serovar Typhi A;Note: this species has also been called Salmonella typhi C;Date: 09-Nov-2001 #sequence_revision 09-Nov-2001 #text_change 09-Jul-2004 C;Accession: AE1021
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      R; Parkhill, J.; Dougan, G.; James, th, T.; Connerton, P.; Cronin, A.;
                                                                                 Query Match
Best Local S
Matches 9
256
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                                                                                   Similarity 47., 9; Conservative
                                       SVLVDGYSPNRNEPLTGNS
SKIVEGYTPESVEEITGVS
                                                                                                                                                                                             formate dehydrogenase
                                                                                                     43.38;
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A.; Davis, P.; Davies, R.M.; Dowd,
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                                                                                   Score 45; DB Pred. No. 41; 4; Mismatches
274
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Salmonella enterica
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L.; White, N.; Farrar,
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C;Superfamily: human cytomegalovirus large structural phosphoprotein; large C;Keywords: phosphoprotein F;2-366/Domain: large structural phosphoprotein homology <CLS>
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A;Residues: 1-1048 <CHE>
A;Cross-references: EMBL:X17403;
                                                                                                                                                                                                                                                                                                                                                                                       Curr. Top. Microbiol. Immunol. 154, 125-169, 1990 A;Title: Analysis of the protein-coding content of the sequence A;Reference number: 809749; MUID:90269039; PMID:2161319 A;Accession: 809795
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Residues: Î-1048 <JAH>
A;Residues: Î-1048 <JAH>
A;Cross-references: UNIPROT:P08318; GB:M16022; NID:g330643; PIDN:AAA45992.
R;Chee, M.S.; Bankier, A.T.; Beck, S.; Bohni, R.; Brown, C.M.; Cerny, R.;
M.; Barrell, B.G.
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R;Jahn, G.; Kouzarides, T.; Mach, M.; Scholl, B.C.; Plachter, B.;

J. Virol. 61, 1358-1367, 1987

A;Title: Map position and nucleotide sequence of the gene for the A;Reference number: A29533; MUID:87198858; PMID:3033266

A;Accession: A29533
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            large structural phosphoprotein pp150 - human cytomegalovirus (strain AD169) C;Species: human cytomegalovirus, human herpesvirus 5 C;pate: 31-Dec-1988 #sequence_revision 31-Dec-1988 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: DNA
                                                                               Similarity
DGYSPNRNEP 15
                                                                                                                                                                                                                                                0.160-0.186
                                                    Conservative
                                                                               43.3%;
                                                                                                                                                                                                                                                                                                        NID:g59591; PIDN:CAA35431.1;
                                                    7:
                                                    Score 45; DB Pred. No. 63; 1; Mismatches
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                                                                                                         Length 1048
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                                                 Gaps
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DGYPPNRQDP 546

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R;Wilson, R.
submitted to the EMBL Data Library, November 1995
submitted to the EMBL Data Library, November 1995
submitted to the EMBL Data Library, November 1995
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A; Residues: 1-1309 4 ODEY>
A; Cross-references: UNIPROT: Q09743; EMBL: Z54140; PIDN: CAA90815.1; GSPDB: GN00066;
A; Experimental source: strain 972h-; cosmid c12C2
A; Experimental source: strain 972h-; cosmid c12C2
B; Hilli, N.; Baumann, D.; Edenharter, E.; Stalder, M.; Schweingruber, M.E.
submitted to the EMBL Data Library, February 1998
A; Description: A new gene, ste20, in fission yeast Schizosaccharomyces pombe - no
hypothetical protein NMA1343 [imported] - Neisseria meningitidis (strain Z2491
C;Species: Neisseria meningitidis
C;Date: 05-May-2000 #sequence_revision 05-May-2000 #text_change 02-Feb-2001
                                                                                                                                                                                     문
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               hypothetical protein F40F4.6 - Caenorhabditis elegans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Residues: 1-1309 <HIL>
A;Cross-references: EMBL:AJ223984;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     and pH regulation.
A;Reference number: Z23064
A;Accession: T46557
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A,Accession: T39379
A,Status: preliminary; translated from GB/EMBL/DDBG
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R;Devlin, K.; Churcher, C.M.; Barrell, B.G.; Rajandream, M.A.; Walsh, S.V. submitted to the EMBL Data Library, September 1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Description: The sequence A;Reference number: Z18493 A;Accession: T16305
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            T16305
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                                                                                                          RESULT 12
                                                                                                                                                                                                                                                                                                                                                                                        A;Introns: 57/3; 95/1; 302/3; 323/1; 380/1; 404/1; 468/1; 507/2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Molecule type: DNA
A;Residues: 1-2214 <WIL>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Gene: stel6; SPBC12C2.02c; ste20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Accession:
                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Cross-references: UNIPROT:Q20219; EMBL:U40420; NID:g1065513; PID:g1065514;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                   Gene: CESP:F40F4.6
                                                                                                                                                                                                                                                                                                                                                                                                                                              Genetics:
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50.0%;
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Pred. No.
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Pred. No.
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82;
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                                                                                                                     carboxyl-terminal proteinase [imported] - Nostoc sp. (strain PCC 7120)
C;Species: Nostoc sp. PCC 7120
A;Note: Nostoc sp. strain PCC 7120 is a synonym of Anabaena sp. strain PCC 7120
C;Date: 14-Dec-2001 #sequence_revision 14-Dec-2001 #text_change 09-Jul-2004
C;Accession: AD2023
R;Kaneko, T.; Nakamura, Y.; Wolk, C.P.; Kuritz, T.; Sasamoto, S.; Watanabe, A.;
Nakazaki, N.; Shimpo, S.; Sugimoto, M.; Takazawa, M.; Yamada, M.; Yasuda, M.;
                        DNA Res. 8, 205-213, 2001
A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium Anal
A;Reference number: AB1807; MUID:21595285; PMID:11759840
A;Accession: AD2023
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conserved hypothetical protein / ankyrin-related protein NMB1133, NMB1171 [imported] C;Species: Neisseria meningitidis C;Species: Neisseria meningitidis C;Date: 31-Mar-2000 #sequence revision 31-Mar-2000 #text_change 09-Jul-2004 C;Accession: D81118; A81114 R;Tettelin, H.; Saunders, N.J.; Heidelberg, J.; Jeffries, A.C.; Nelson, K.E.; Eisen, Hickey, E.K.; Haft, D.H.; Salzberg, S.L.; White, O.; Fleischmann, R.D.; Dougherty, B. ri, H.; Qini, H.; Vamathevan, J.; Gill, J.; Scarlato, V.; Masignani, V.; Pizza, M. Science 287, 1809-1815, 2000 A;Authors: Grandi, G.; Sun, L.; Smith, H.O.; Fraser, C.M.; Moxon, E.R.; Rappuoli, R.; A;Authors: Grandi, G.; Sun, L.; Smith, H.O.; Fraser, C.M.; Moxon, E.R.; Rappuoli, R.;
                                                                                                                                                                                                     A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-253 <TE2>
A;Cross-references: GB:AE002465; GB:AE002098; NID:g7226401; PIDN:AAF41556.1; PID:g7226408
A;Cross-rimental source: serogroup B, strain MC58
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D81118
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A;Experimental source: serogroup A, strain Z2491
C;Genetics:
A;Gene: NMA1343
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Parkhill, J.; Achtman, M.; James, K.D.; Bentley, S.D.; Churcher, C.; Klee, S.R.; Moi ; Holroyd, S.; Jagels, K.; Leather, S.; Moule, S.; Mungall, K.; Quail, M.A.; Rajandres Nature 404, 502-506, 2000

Nature 404, 502-506, 2000

A;Title: Complete DNA sequence of a serogroup A strain of Neisseria menigitidis Z2491.

A;Reference number: A81775; MUID:20222556; PMID:10761919

A;Accession: C81903
                                                                                                                                                                                             A;Gene:
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A;Experimental source: serogroup B, strain MC58
                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: DNA
A; Residues: 1-253 <TET>
                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Title: Complete genome sequence of Neisseria meningitidis serogroup B A;Reference number: A81000; MUID:20175755; PMID:10710307 A;Accession: D81118
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A; Residues: 1-186 < PAR>
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196
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                                                                                          Similarity 7; Conserv
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                                     DGYSPNRNEPLTGNS
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  DGYTPLHHEAIAGNA
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                                                                                                                    42.3%;
46.7%;
210
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Pred. No.
                                                                                                                      Score 44; DB Pred. No. 18;
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strain MC58.
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Rajandream,
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S.; Watanabe, A.; Iriguchi, , M.; Yasuda, M.; Tabata, S.

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R;Murphy, L; Harris, D.; Bentley, S.D.; Parkhill, J.; Barrell, B.G.; Rajandream, M.A. submitted to the EMBL Data Library, February 1999
A;Reference number: Z21589
A;Accession: T35818
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-748 <MUR>
A;Cross-references: UNIPROT:09Z577; EMBL:AL035569; PIDN:CAB37578.1; GSPDB:GN00070; SCOEU
A;Experimental source: strain A3(2)
Search completed: October 27, 2005, 18:57:23 Job time: 13.3721 secs
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                                                                                                                                                                                                                                                                                                      C; Genetics:
A; Gene: SCOEDB: SC8D9.14
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        probable integral membrane export protein - Streptomyces coelicolor (;Species: Streptomyces coelicolor C;Date: 05-Nov-1999 #sequence_revision 05-Nov-1999 #text_change 09-Jul-2004 C;Accession: T35818
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A;Residues: 1-445 <KUR>
A;Residues: 1-445 <KUR>
A;Cross-references: UNIPROT:Q8YW78; GB:BA000019; PIDN:BAB73437.1; PID:g17130828; GSPDB:GA;Experimental source: strain PCC 7120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         C; Genetics:
                                                                                                                                                                  Query Match
Best Local Similarity 53.3
""" hes 8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match 42.3%; Score 44; DB 2; Length 445; Best Local Similarity 58.8%; Pred. No. 34; Matches 10; Conservative 3; Mismatches 4; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2 SVLVDGYSPNRNEPLTG 18 :||||| ::| ||| 312 AVLVDGNSASASEILTG 328
                                                                                                    408 LLADGFGPGVNGPLT 422
                                                                                                                                                    3 VLVDGYSPNRNEPLT 17
                                                                                                                                                                                                    42.3%; Score 44; DB 2; Length 748; 53.3%; Pred. No. 62; 1ndels
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Title:
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Eukaryota; Metazoa; Chordata;
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Lloyd K.O., Yin B.W.T.;
Submitted (SEP-2003) to the
EMBL; AF361486; AAK74120.3;
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MEDLINE=21347965; Pub
Yin B.W., Lloyd K.O.;
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01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                               gequences.";
Tumour Biol.
                                                                                   York L.;
"The CA 125 gene:
                                                                                                                                            SEQUENCE FROM N.A.
MEDLINE=21646939; PubMed=11786729; I
O'Brien T.J., Beard J.B., Underwood
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Pfam; PF01390; SEA; 20.
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J. Biol. Chem. 276:27371-27375(2001)
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Last annotation update)
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Pred. No. 4.3e-08;
Mismatches 0;
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Pred. No. 3.7e-07;
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Catarrhini; Hominidae,
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                                                                                                                                            DOI=10.1159/000050638;
d L.J., Dennis R.A., Sa
                                                                                      superstructure
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i; Hominidae;
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Best Local
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O'Brien T.J., Underwood L.J., Beard J.B.
Submitted (OCT-2002) to the EMBL/GenBan
EMBL; AF414442; AAL65133.2; -.
Genew; HGNC:15582; MUC16.
Pfam; PF01390; SEA; 51.
SMART; SM00200; SEA; 23.
PROSITE; P800152; ATPASE ALPHA_BETA; UN
PROSITE; P850024; SEA; 11.
SEQUENCE 22152 AA; 2352668 MM; B3E7
[5]
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
STRAIN=C57BL/6G; TISSUE=Whole body;
STRAIN=C57BL/6G; TISSUE=Whole body;
MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
Shibata K., Icoh M., Aizawa K., Nagaoka S., Sasaki N., Ca
Shibata K., Icoh M., Aizawa K., Kitsunai T., Tashiro H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Q9D1H1;
Q9D1H1;
01-JUN-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Mus musculus 18-day embryo whole body cDNA, RIKEN full-length enriched
library, clone:11110008114 product:hypothetical SEA domain containing
protein, full insert sequence.
Name=1110008114Rik;
                                                                                                                                                                                                                                            The FANTOM Consortium,
the RIKEN Genome Exploration Research Group
"Analysis of the mouse transcriptome based o
60,770 full-length CDNAs.";
Nature 420:563-573 (2002).
                                                                                                                SEQUENCE FROM N.A.

STRAIN=C57BL/6J; TISSUB=whole body;

STRAIN=C57BL/6J; TISSUB=whole body;

MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;

Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K.,

Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;

"Normalization and subtraction of cap-trapper-selected cDNAs prepare full-length cDNA libraries for rapid discovery of new Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
TISSUE=Whole
                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Whole body;
STRAIN=C510B16660; PubMed=11217851; DOI=10.1038/35055500;
RIKEN FANTOM Consortium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN=C57BL/6J; TISSUE=Whole body; MEDLINE=99279253; PubMed=10349636; I Carninci P., Hayashizaki Y.; "High-efficiency full-length cDNA c."Meth. Enzymol. 303:19-44(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                  "Functional annotation of Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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Pred. No. 1.4e-06;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                      body;
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                                                                                                                                                                           Shibata K.,
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                               Carninci P
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                                                                                                                                                                                                                                                                                            Team;
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A Adachi J., Aizawa K., Akahira S., Akimura T., Arai A., Aono H.,
A Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,
A Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,
A Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H.,
A Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
A Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
A Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
A Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
A Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
A Kawai J., Kojima Y., Konno H., Nishi K., Nomura K., Numazaki R., Ohno M.,
A Matsuyama T., Miyazaki A., Nishi K., Nomura K., Sakai C., Sakai K.,
A Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
A Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
A Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
A Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
A Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
A Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
A Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
A Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
A Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
A Okazaki Y., Okido T., Owa C., Saito H., Saito R., S
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O156 STRAT STANDAKU;
Q07017;
Q07017;
O1-NOV-1997 (Rel. 35, Created)
O1-NOV-1997 (Rel. 35, Last sequence update)
O1-NOV-1997 (Rel. 44, Last annotation update)
O5-JUL-2004 (Rel. 44, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K., Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M., Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y., "RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer."; [6]
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                                                                                                                                                                                                                                                                                                                        MEDLINE=94150470; PubMed=8107683; Swan D.G., Rodriguez A.M., Vilches C., Mendez C., Salas J.A.; "Characterisation of a Streptomyces antibioticus gene encoding polyketide synthase which has an unusual coding sequence."; Mol. Gen. Genet. 242:358-362(1994).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Streptomycineae; Streptomycetaceae; NCBI_TaxID=1890;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales;
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PROSITE; PS50024; SEA; 1.
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                                                                                                                                                                                                lactone ring.
COFACTOR: Contains 2 covalently bound phosphopantetheines.
SIMILARITY: Contains 2 acyl carrier domains.
                                                                                                                                                                                                                                                                                               FUNCTION: May be involved in the biosynthesis of the oleandomycin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           181
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258 AA; 2
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57.9%;
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Pred. No. :
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pfam; PF00109; ketoacyl-synt; 2.
pfam; PF002801; Ketoacyl-synt; C; 2.
pfam; PF00850; PP-binding; 2.
pfam; PF00975; Thioesterase; 1.
pfam; PF00975; Thioesterase; 1.
prosite; PS50075; ACP_DOMAIN; 2.
pROSITE; PS50066; B KETOACYL SYNTHAS
PROSITE; PS00112; PHOSPHOPANTETHEINE
PROSITE; PS00012; PHOSPHOPANTETHEINE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NP BIND
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SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ACT SITE
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InterPro;
SEQUENCE OF 676-753.
MEDLINE=89113342; PubMed=3064079;
Gerard N.P., Lively M.O., Gerard
                                                                                                                                                                                              Cavia porcellus (Guinea pig).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Rodentia; Hystricognathi; Caviidae; Cavia.
NCBI_TaxID=10141;
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                                                                                 MEDLINE=90307998; PubMed=1973176;
Auerbach H.S., Burger R., Dodds A
"Wolecular basis of complement C3"
J. Clin. Invest. 86:96-106(1990).
                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS00606; B KĒTOACYL SYNTHASE; 2.
PROSITE; PS00012; PHOSPHOPANTETHEINE; 2.
ACYltransferase; Antibiotic biosynthesis; Multifunctional
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DOMAIN
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               3 VLVDGYSPNRNEPLTG
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IPR001031; Thioesterase.
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llarity 62.5%;
Conservative
                                                                                 Burger R., Dodds A., is of complement C3 dt. 86:96-106(1990).
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Pred. No. 1.7e+02;
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W; 41AE78AAAEB61F86
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Acyl-ester int
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Acyl carrier (ACP) 1.
Beta-ketoacyl synthase 2.
Acyltransferase (AT) 2.
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se (AT) 1.
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                                                                                                      guinea
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                                                                                                      pigs.";
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ridentification and alignment of a thiol ester site in the third component of guinea pig complement.";

RI Biochemistry 22:942-947(1983).

CC -i- FUNCTION: C3 plays a central role in the activation of the complement system. Its processing by C3 convertase is the central complement system. Its processing by C3 convertase is the central complement pathways. Its processing by C3 convertase is the central complement pathways. CC reaction in both classical and alternative complement pathways. CC After activation C3b can bind covalently, via its reactive thiolester, to cell surface carbohydrates or immune aggregates. CC thiolester, to cell surface carbohydrates or immune aggregates. CC -i- FUNCTION: Derived from proteolytic degradation of complement C3, C3 anaphylatoxin is a mediator of local inflammatory process. It induces the contraction of smooth muscle, increases vascular permeability and causes histamine release from mast cells and CC permeability and causes histamine release from mast cells and CC subsophilic leukocytes.

CC -i- SUBNUT: C3 precursor is first processed by the removal of 4 Arg
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR002890; A2M_N.
InterPro; IPR009048; AM receptor bind.
InterPro; IPR009048; Anaphylatoxin.
InterPro; IPR001840; Anaphylatoxn.
InterPro; IPR001840; Anaphylatoxn.
InterPro; IPR001894; Invasin intimin.
InterPro; IPR001599; MacrogloblnA2.
InterPro; IPR001599; MacrogloblnA2.
InterPro; IPR001340; Netrin_C.
InterPro; IPR0018930; Terp_Cyc_toroid.
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PRODOM; PD003264; ANAPHYLATOXII; 1.

PROSITE; PS00477; ALPHA 2 MACROGLOBULIN;

PROSITE; PS01177; ANAPHYLATOXIN 1; 1.

PROSITE; PS01178; ANAPHYLATOXIN 2; 1.

PROSITE; PS01178; ANAPHYLATOXIN 2; 1.
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SIGNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Pfam; PF00207; A2M; 1.
Pfam; PF01835; A2M N;
Pfam; PF01821; ANATO;
Pfam; PF01759; NTR; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        sities requires a license agreement (See http://www.isb-sib.ch/announce/send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  s SWISS-PROT entry is copyright. It is produced through a collab ween the Swiss Institute of Bioinformatics and the EMBL outset Buropean Bioinformatics Institute. There are no restrictions by non-profit institutions as long as its content is in ified and this statement is not removed. Usage by and for comparing the statement is not removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             residues, forming two chains, beta and alpha, linked by a disulfide bond. C3 convertase activates C3 by cleaving the alpha chain, releasing C3a anaphylatoxin and generating C3b (beta chain + alpha chain).

SIMILARITY: Contains 1 anaphylatoxin-like domain.

SIMILARITY: Contains 1 NTR domain.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            M34054; AAA37038.1; -. A37156; C3GP. ; P01026; 1QQF.
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Signal; Thioester l
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, Terp_cyc_toroid.
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1:473-478(1988).
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                                                                                         Complement C3.
Complement C3 alpha chain.
Complement C3 alpha chain.
Complement C3 alpha chain.
C3a anaphylatoxin.
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Inflammatory response;
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RESULT Q7VCG8 ID Q AC Q DT 0:

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Q7VCG8 Q7VCG8; 01-OCT-2003 01-OCT-2003

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Submitted (APR-2004) to the EMBL/GenBank/DDBJ databases.
-!- SIMILARITY: Contains 11 cadherin domains.
EMBL; AY61236; AAT37678.1; -.
GO; GO:0016020; C:membrane; IEA.
GO; GO:0005509; F:calcium ion binding; IEA.
GO; GO:0007156; P:homophilic cell adhesion; IEA.
InterPro; ITR002126; Cadherin.
Pfam; PF00028; Cadherin; 3.
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Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Pyr
Pyralidae; Pyraustinae; Ostrinia.
                                                                                                                                             PROSITE; PS00232; CADHERIN 1;
PROSITE; PS50268; CADHERIN 2;
Calcium; Calcium-binding.
SEQUENCE 1714 AA; 191900 MP
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                                                                                                                                                                                                                                       PRINTS; PR00205; CADHERIN.
                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
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Isoglutamyl cysteine thioester (Cys-Gln).

N-linked (GlcNAc. . .) (Potential).

N-linked (GlcNAc. . .) (Potential).

D -> N (in Ref. 2).

Missing (in Ref. 2).

Q -> E (in Ref. 2).

Missing (in Ref. 3).
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                                                                                         Score 48; DB 2;
Pred. No. 1.6e+0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 49; DB 1;
Pred. No. 1.1e+02;
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p23250;
p23250;
p1.NOV-1991 (Rel. 20, Created)
p1.FEB-1995 (Rel. 31, Last sequence update)
p1.FEB-1995 (Rel. 44, Last annotation update)
p2.JUL-2004 (Rel. 44, Last annotation update)
p2.JUL-2004 (Rel. 44, Last annotation update)
Negative RAS protein regulator protein.
Name=RP11; OrderedLocusNames=Y11195;
P3. Saccharomyces (BakerY19)
P3. Saccharomyces (BakerY19)
P4. Saccharomyces (BakerY19)
P5. Saccharomyces (BakerY19)
P5. Saccharomycetales; Saccharomycetes;
P5. Saccharomycetales;
P6. Saccharomyceta
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STRAIN-SARG / CCMP 1375 / SS120;

MEDLINE-22810154; PubMed=12917486; DOI=10.1073/pnas.1733211100;

Dufresne A., Salanoubat M., Partensky F., Artiguenave F., Axman.

Barbe V., Duprat S., Galperin M.Y., Koonin E.V., Le Gall F.,

Makarova K.S., Ostrowski M., Oztas S., Robert C., Rogozin I.B.,

Makarova K.S., Ostrowski M., Oztas S., Robert C., Wincker P.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        InterPro; IPR001763; Rhodanese-like.
InterPro; IPR001307; Thiosulftrans.
SMART; SM00450; RHOD; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             "Genome sequence of the cyanobacterium Prochlorococcus marinus SS120, a nearly minimal oxyphototrophic genome."; Proc. Natl. Acad. Sci. U.S.A. 100:10020-10025(2003).
EMBL; AE017163; AAP99816.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Prochlorococcus marinus.
Bacteria; Cyanobacteria; Prochlorales;
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STRAIN=S288c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Overexpression of RPI1, a novel inhibitor of the yeast Ras-cyclic AMP pathway, down-regulates normal but not mutationally activated ras
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MEDLINE=91304380; Pub
Kim J.-H., Powers S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      function."
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PS50206; RHODANESE_3; 1.
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Pred. No.
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Matches
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EMBL; M63178; AAA35001.1; -.
EMBL; S42682; AAB39843.1; -.
PIR; S49890; S49890.
GermOnline; 139654; -.
SGD; S000001381; RPI1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   05-JUL-2004
05-JUL-2004
05-JUL-2004
                                                                                      LaBaer J.;
Submitted (FEB-2004) to the EMBL/Ge
EMBL; AYS5808B; AAS56414.1; -.
SGD; S000001381; RPII.
GO; GO:0005634; C:nucleus; IEA.
GO; GO:0005677; F:NNA binding; IEA.
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                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.

Marsischky G., Rolfs A., Richardson A., Kane M., Baqui M.,

Marsischky G., Rolfs A., Richardson A., Kane M., Baqui M.,

Hu Y., Vannberg F., Weger J., Kramer J., Moreira D., Kelles

Zuo D., Raphael J., Hogle C., Jepson D., Williamson J., Car

Gonzaga L., Vasconcelos A.T., Simpson A., Kolodner R., Hari
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GO;
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   InterPro; IPR001005; Myb_DNA_binding. PROSITE; PS50090; MYB_3; 1. SEQUENCE 407 AA; 46633 MW; 448D60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Saccharomyces cerevisiae (Baker's yeast).
Eukaryota; Fungi; Ascomycota; Saccharomycotina; Saccharomycetes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Saccharomycetales; Saccharomycetaceae; Saccharomyces.
NCBI_TaxID=4932;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=RPI1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     AIT113C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2605G6;
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PROSITE; PS00037; MYB 1; FALSE NEG.
PROSITE; PS00334; MYB 2; FALSE NEG.
PROSITE; PS50090; MYB 3; 1.
DNA-binding; Nuclear protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Local
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GO:0005634; C:nucleus; IDA.
GO:0005083; F:small GTPase regulatory/interacting protein...
GO:0005083; F:small GTPase regulatory/interacting protein...
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91
174
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242
252
46633 MW; 448D6C302815B6FD CRC64;
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66.7%;
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N -> K (in Ref. 1).

SNS -> P (in Ref. 1).

A -> V (in Ref. 1).

A -> V (in Ref. 1).

C -> S (in Ref. 1).

C -> S (in Ref. 1).

N -> S (in Ref. 1).

N -> S (in Ref. 1).
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Last sequence up
Last annotation
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 update)
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Warlow E.,
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RESULTI QG SWEET CONTROL CONTR
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Best Local
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Best Local
          SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
STRAIN=K96243;
PubMed=15377794;
PubMed=15377794;
Holden M.T.G., Titbail R.W., Peacock S.J., Cerdeno-Tarraga A.M., Atkins T., Crossman L.C., Pitt T., Churcher C., Mungall K., Bentley S.D., Sebaihia M., Thomson N.R., Bason N., Beacham I.R., Brooks K., Brown K.A., Brown N.F., Challis G.L., Cherevach I., Chillingworth T., Cronin A., Crosset B., Davis P., DeShazer D., Feltwell T., Fraser A., Hance Z., Hauser H., Holroyd S., Jagels T., Thomson M., Moule S., Price C., Quail M.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q63WY6,
Q63WY6;
25-OCT-2004 (TrEMBLrel. 2
25-OCT-2004 (TrEMBLrel. 2
25-OCT-2004 (TrEMBLrel. 2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Q9XBS2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Submitted (UUN-1999) to the EMBL/GenBank/DDBJ databases.
EMBL; AF157493; AAD42403.1; -.
MEROPS; M01.005; -.
GO; GO:0004177; F:aminopeptidase activity; IEA.
GO; GO:0004179; F:aminopeptidase activity; GO; GO:0006179; F:membrane alanyl aminopeptidase activity; GO; GO:0006508; P:proteolysis and peptidolysis; IEA.
InterPro; IPR001303; Peptidase_M1.
InterPro; IPR006025; Peptidase_M1.
InterPro; IPR006025; Peptidase_M1.
PRINTS; PR00756; ALADIPTASE.
PROSTIS; PS00142; ZINC_PROTEASE; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                         Burkholderia pseudomallei K96243.
Bacteria; Proteobacteria; Betapro
Burkholderiaceae; Burkholderia.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Zymomonas mobilis.
Bacteria; Proteobacteria; Alphaproteobacteria; Sphingomonadales;
Sphingomonadaceae; Zymomonas.
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01-NOV-1999 (TrEMBLrel 12, Last sequence up
01-MAR-2004 (TrEMBLrel 26, Last annotation
                                                                                                                                                                                                                                                                                                         NCBI_TaxID=272560;
                                                                                                                                                                                                                                                                                                                                                                                                                Hypothetical protein. ORFNames=BPSL0753;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Aminopeptidase.
SEQUENCE 867
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8; Conserv
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60.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  28,
28,
                                                                                                                                                                                                                                                                                                                                                              Betaproteobacteria; Burkholderiales;
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Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Created)
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Pred. No.
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RESULT Q7NWG2

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Best Local
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Q6CJ98;
25-OCT-2004
25-OCT-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Dujon B., Sherman D., Fischer G., Durrens P., Casaregola S.,
Lafontaine I., de Montigny J., Marck C., Neuveglise C., Talla E.,
Goffard N., Frangeul L., Aigle M., Anthouard V., Babour A., Barbe V.,
Barnay S., Blanchin S., Beckerich J.M., Beyne E., Bleykasten C.,
Boisrame A., Boyer J., Cattolico L., Confanioleri F., de Daruvar A.,
Despons L., Fabre E., Fairhead C., Ferry-Dumazet H., Groppi A.,
Hantraye F., Hennequin C., Jauniaux N., Joyet P., Kachouri R.,
Kerrest A., Koszul R., Lemaire M., Lesur I., Ma L., Muller H.,
Kerrest A., Koszul R., Lemaire M., Datas S., Ozier-Kalogeropoulos O.,
Pellenz S., Potier S., Richard G.F., Straub M.L., Suleau A.,
Swennene D., Tekaia F., Wesolowski-Louvel M., Westhof E., Wirth B.,
Zeniou-Meyer M., Zivanovic I., Bolotin-Fukuhara M., Thierry A.,
Bouchier C., Caudron B., Scarpelli C., Gaillardin C., Weissenbach J.,
Wincker B., Govern F., Scrapelli C., Gaillardin C., Weissenbach J.,
Wincker B., Govern F., Scrapelli C., Gaillardin C., Weissenbach J.,
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Proc. Natl. Acad. Sci. U.S.A. 101:14240-14245(2004).

EMBL, BX571965; CAH34746.1; -.
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25-OCT-2004 (TrEMBLrel. 28, Last sequence of the control of
                                                                                                                                                                                                                                                                                                      Submitted (JUL-2004) to the | EMBL; CR382126; CAG98699.1; InterPro; IPR007317; DUF410. Pfam; PF04190; DUF410; 1. SEQUENCE 302 AA; 34920 MW
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Bouchier C., Caudron B., Scarp Wincker P., Souciet J.L.; "Genome evolution in yeasts.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Kluyveromyces lactis NRRL Y-1140.
Eukaryota; Fungi; Ascomycota; Saccharon
Saccharomycetales; Saccharomycetaceae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Genolevures;
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STRAIN=NRRL Y-1140;
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8; Conservative
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VLVDGQEPNLKDVVTG 110
                                                                       VLVDGYSPNRNEPLTG 18
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227 AA; 2
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AA; 34920 MW;
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RC STRAINATCC 12472 / DSM 30191;

RX MEDLINE=22882880; PubMed=14500782; DOI=10.1073/pnas.1832124100;

RX MEDLINE=22882880; PubMed=14500782; DOI=10.1073/pnas.1832124100;

RRA Alves-Gomes J.A., Andrade E.M., Araripe J., de Araujo M.F.F.,

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RA Alves-Gomes J.A., Andrade E.M., Araripe J., de Araujo M.F.F.,

RA Alves-Gomes J.A., Andrade E.M., Brito C.A., Becchi M., Buratto S.,

RA Alves-Gomes J.A., Cardoso D.D.P., Carneiro N.P., Carraro D.M.,

RA Batista J.S., Belo A., van den Berg C., Bogo M., Bonatto S.,

RA Batista J.S., Belo A., Van den Berg C., Bogo M., Bonatto S.,

RA Carrario J., Brigido M.M., Brito C.A., Brocchi M., Burity H.A.,

RA Canargo A.A., Cardoso D.D.P., Carneiro N.P., Carraro D.M.,

Creczynski-Pasa T.B., Cunha-Junior N.C., Fagundes N., Falcao C.L.,

RA Carvalho C.M.B., Cascardo J.C.M., Cavada B.S., Chueire L.M.O.,

RA Carvalho C.M.B., Farias I.P., Felipe M.S.S., Ferrari L.P., Ferro J.A.,

RA Ferro M.I.T., Franco G.R., Freitas N.S.A., Furlan L.R., P., Ferro J.A.,

RA Gazzinelli R.T., Gomes E.A., Goncalves P.R., Grangeiro T.B.,

RA Grattapaglia D., Grisard E.C., Hanna E.S., Jardim S.N., Laurino J.,

RA Grattapaglia D., Grisard E.C., Hanna E.S., Jardim S.N., Laurino J.,

RA Grattapaglia D., Grisard E.C., Hanna E.S., Jardim S.N., Laurino J.,

RA Madeira H.M.F., Manfio G.P., Maranhao A.Q., Martins W.S.,

RA Madeira H.M.F., Manfio G.P., Maranhao A.Q., Martins W.S.,

RA Macuro S.M.Z., de Medeiros S.R.B., Meissner R.V., Moreira J.O.,

RA Paixao R.F.C., Parente J.A., Pedrosa F.O., Pena S.D.J., Pereira J.O.,

RA Paixao R.F.C., Parente J.A., Pedrosa F.O., Pena S.D.J., Pereira J.O.,

RA Ramalho-Neto C.E., Reis A.M.M., Rigo L.U., Rondinelli E.,

RA Ramalho-Neto C.E., Reis A.M.M., Rigo L.U., Rondinelli E.,

RA Silva A.M.R., Santos F.R., Schneider M., Silva R., Simoes I.C.,

RA Silva A., Simpson A.J. G.,

RA Silva A., C.S., Selva B., Souza E.M., Souza K.R.L.,

RA Silva A., C.S., Selva B., Selva B., Selva B
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Bacteria; Proteobacteria; Betaproteobacteria; Neisseriales;
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                                                                                                                        Hypothetical protein.
OrderedLocusNames=BT2220;
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Pfam; PF00691; OmpA; 1.
ProDom; PD000930; OmpA/MotB; 1.
   Bacteroidaceae;
NCBI_TaxID=818;
                                                        Bacteria; Bacteroidetes; Bacteroides (class); Bacteroidales;
                                                                                        Bacteroides thetaiotaomicron
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EMBL; AB016935; AA077327.1; -...
                                                                                                                                                                                                                                      SEQUENCE FROM N.A.
STRAIN=VPI-5482 / ATCC 29148;
MEDLINE=22550858; PubMed=12663928; DOI=10.1126/science.1080029;
                                                                                                                         Complete proteome; Hypothetical protein.
SEQUENCE 424 AA; 47549 MW; 3C87947B0184AC3E CRC64;
 358
                               1 SSVLVDGYSPNRNEPLTGNS 20
                                                              Similarity 40.88; Conservative
SAFIVDGYAMTKNESSSSNA 377
                                                                             44.2%; Score 46; 40.0%; Pred. No.
                                                              6
                                                                Mismatches
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Job time Search completed: October 27, 2005, 18:55:07 63.1395 secs

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GenCore version (c) 1993 - 2005

5.1.6 Compugen Ltd.

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Minimum DB
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ADF08985
ABP30978
ADA08641
ADF08970
AAB12625
AAB12631
AAB12653
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ABB30973
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Ada08636
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Human Muc
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Human O77
Human O74
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45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	28	27	26
105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105	105
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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ABG96380	ABB50283	AAB95836	ADN40451	ADG46095	ADF08808	ADF08974	ADA08465	ADA08631	ABP30896	ABP30968	AAB99203	AAB12552	ADG46172	ADF08885	ADA08542	ABP30898	AAB12554	ADS94303	ADS94302
Abg96380 Human ova	Abb50283 HOST-1 ov	Aab95836 Human pro	Adn40451 Human bre	Adg46095 Human ova	Adf08808 Secreted	Adf08974 Secreted	Ada08465 Human ova	Ada08631 Human 077	Abp30896 0772P pro	Abp30968 Hypotheti	Aab99203 Human ova	Aab12552 Human ova	Adg46172 Human ova	Adf08885 Secreted	Ada08542 Human ova	Abp30898 0772P clo	Aab12554 Human ova	Ads94303 CA 125/07	Ads94302 CA 125/07

ALIGNMENTS

RESULT 1 ADJ66742 ID ADJ66742 ID ADJ66742 AC ADJ6 XX ADJ6 XX ADJ6 XX Huma XX Huma XX Homo XX H WO2004005470-A2 Homo sapiens. shed antigen; human; Muc1; Muc breast cancer; ovarian cancer. monoclonal antibody; shed antigen; human; Human Muc1/Muc16 protein-related peptide SeqID15 06-MAY-2004 ADJ66742; ADJ66742 standard; peptide; (first entry) epitope; non-shed extracellular portion; Muc1; Muc16; cytostatic; gene therapy; malignancy; 20 B

15-JAN-2004.

03-JUL-2002; 2002US-0393094P. 03-JUL-2003; 2003WO-US020907

Payne G, Vater CA; (IMMU-) IMMUNOGEN INC. Chittenden T, Goldmakher V, Chun סי, Sneider-Mulready K;

WPI; 2004-091350/09

New antibody to non-shed human Mucl or Mucl6, useful for diagnosing, treating or monitoring malignancies, such as breast or ovarian cance cancer.

Claim 14; SEQ ID NO 15; 113pp; English.

This invention relates to a novel isolated monoclonal antibody that specifically binds to an epitope of a non-shed extracellular portion of a shed antigen or of human Mucl or Muclá protein. The invention may be useful for the development of compounds with a cytostatic or for gene therapy. The composition and methods are useful in diagnosing, treating or monitoring malignancies, such as breast or ovarian cancer. The present sequence is that of a peptide which was used for raising antibodies to the extracellular, non-shed region of Muclá and which is claimed in the specification.

Sequence 20 AA;

Aae12634

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RESULT 3
ADJ66740
ID ADJ6
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Vater CA;
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              Human Muc16 GST fusion
                                                                                                                                                                                                                                       Sequence 108
                                                                                                                                                                                                                                                                                                                                                           Claim 13;
                                                                                                                                                                                                                                                                                                                                                                             New antibody to non-shed human Muc1 or Muc16, useful for diagnosing, treating or monitoring malignancies, such as breast or ovarian cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                   WPI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            monoclonal antibody; epitope; non-shed extracellular portion; shed antigen; human; Muc1; Muc16; cytostatic; gene therapy; malignancy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Human Muc16 epitope amino acid sequence
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                                      06-MAY-2004
                                                              ADJ66740;
                                                                                    ADJ66740 standard; protein; 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (IMMU-) IMMUNOGEN INC
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llarity 100.0%;
Conservative 0;
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                                      (first entry)
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itive 0;
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               protein amino acid sequence SeqID13.
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Pred. No. 8.6e-10;
; Mismatches 0;
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Pred. No. 6.3e-09;
; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   Payne G,
Vater CA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     monoclonal antibody; epitope;
shed antigen; human; Muc1; Muc
breast cancer; ovarian cancer.
                        ABP30979 standard; protein; 178
                                                                                                                                                                                                                                                                                                                                                                              New antibody to non-shed human Muc1 or Muc16, treating or monitoring malignancies, such as
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ABP30979;
                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                    Disclosure; SEQ ID NO 13; 113pp; English.
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Muc1; Muc16; cytostatic; gene therapy; malignancy;
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                                                                                                                                             Score 105; DB 8;
Pred. No. 6.3e-09;
; Mismatches 0;
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RRESULT 4
ABP30971
ID ABP3
XX ABP3097
XX ABP3
XX ABP3
XX Y
XX Y
XX Pred
XX Huma
XX Huma
XX Homc
QX Homc
QX Homc
YX WO20
XX 24-0
XX 17-0
XX 11-0
PR 110-4
PR 10-4-0
PR 20-5
PR 20-5
PR 10-4-0
PR 10-4
                                                                                                17-JUL-2000;
10-AUG-2000;
20-SEP-2000;
04-APR-2001;
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                                                           18-JUN-2001;
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                                                                                      2000US-00617747.
2000US-00636801.
2000US-00667857.
2000US-00827271.
                                                                                                                                                                                                                                                                                                                                                                   2001WO-US022635
                                                           2001US-00884441
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RESULT 5
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Matches 20
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New isolated 0772P polypeptides and polynucleotides, useful in gene therapy, particularly for treating or diagnosing cancer, e.g. ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Polypeptides comprising an immunogenic portion of an ovarian carcinoma protein or its variants, useful for stimulating an immune response in
                              WPI;
                                                                                                                                              (MITC/)
(KING/)
(ALGA/)
(FLIN/)
                                                                                                                                                                                                                 17-JUL-2001; 2001US-00907969
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence 178 AA;
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                                                                                                                                                                                                                                     15-MAY-2003
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                                                                                                                                                                                              18-JUN-2001; 2001US-00884441.
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KING G E.
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REED S G.
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                                                                                                                                                                                                                                                                                            gene therapy; ovarian cancer;
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                                               JL, King
, Vedvick
                                                                                      CARTER D. HILL P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         or :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  JL, King GE,
Vedvick TS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CORIXA CORP.
                                                                             ALBONE E.
                                                                                                                                                                                                                                                                                                                                                                                                                                       TNYQRNKRNI EDALNQLFRN
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                                                                                                                                                                                                                                                                                                                partial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        treating ovarian cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                    (first
                                               TS,
                                                                                                                                                                                                                                                                                                                                                                          protein;
                                                                                                                                                                                                                                                                                                               protein #12
                                                                                                                                                                                                                                                                                                                                    entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
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Carter
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 105; DB 5;
Pred. No. 1.1e-08;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
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Hill P,
                                               Fling
Hill P,
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P, Albone
                                               SP, Retter
, Albone E;
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                                                         Fanger GR;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     RESULT 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local S
Matches 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-JUN-1999;
24-SEP-1999;
17-JUL-2000;
10-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The invention relates to an isolated O772P polypeptide, which has the structure fully defined in the specification. The composition containing the polypeptides, polynucleotides, fusion proteins, antibodies, T-cells or antigen presenting cells are useful for stimulating an immune response and treating ovarian cancer. Detecting the presence of the polynucleotides and polypeptides is useful for diagnosing cancer. Ovarian carcinoma cDNAs and protein cDNAs were identified using microarray technology. The present sequence represents a human ovarian carcinoma
The invention describes nucleic acids (I) and the polypeptides (II) tencode. The nucleic acids (I) may be used for preventing, diagnosing treating diseases related to their aberrant expression i.e. breast cancers. For example, (I) and (II) may be used to treat disorders
                                                                                                                                                                      Oncogenic nucleic acids useful treatment of breast cancer.
                                                                                                                                                                                                                                                     WPI; 2003-897152/82.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   20-SEP-2000;
04-APR-2001;
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17-DEC-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      gene therapy; protein therapy; vaccine; antibody inhibition;
breast cancer; restorative therapy; diagnostic agent; immunoassay;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Secreted ovarian carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 178 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-JUL-2002;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      antigen.
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                                                                                                                          SEQ
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99US-00404879
2000US-00617747
2000US-00636801
2000US-00636801
2000US-0067857
2001US-00827271
2001US-0084441
                                                                                                                                                                                                                                                                                                 Retter MW,
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98US-00216003.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 105; DB 7;
Pred. No. 1.1e-08;
; Mismatches 0;
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                                                                                                                          English.
                                                                                                                                                                                                                                                                                                   H111
                                                                                                                                                                                                prevention,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 178;
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RESULT 7
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Best Local S
Matches 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-JUL-2000;
10-AUG-2000;
20-SEP-2000;
04-APR-2001;
18-JUN-2001;
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   This invention relates to polypeptides comprising an immunogenic portion of an ovarian carcinoma protein which acts as an immunostimulant and is cytostatic. The polypeptides, polynucleotides, antibodies, fusion proteins, T cell populations and antigen presenting cells that express the polypeptides are useful for stimulating an immune response in a patient and treating ovarian cancer. This sequence represents protein related to the invention
                                                                                                                                                                                                                                                                                                                      Polypeptides comprising an immunogenic portion of an protein or its variants, useful for stimulating an impatient and treating ovarian cancer.
                                                                                                                                                                                                                                                           Example
                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-164781/21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mitcham
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Extracellular and transmembranal regions of 0772P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-JUL-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 associated with decreased expression by rectifying mutations or deletions
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            24-JAN-2002.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  70
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20; Conserv
                                                                                                                                                                                                                                                        13; Page 361; 408pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                JL, King
, Vedvick
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; 2000US-00636801.
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Carter
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Pred. No. 1.1e-08;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Fling SP, Rett
Hill P, Albone
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Query Match
Best Local Similarity
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                                                                  The invention relates to an isolated O772P polypeptide, which has the structure fully defined in the specification. The composition containing the polypeptides, polynucleotides, fusion proteins, antibodies, T-cells or antigen presenting cells are useful for stimulating an immune response and treating ovarian cancer. Detecting the presence of the polynucleotides and polypeptides is useful for diagnosing cancer. Ovarian carcinoma cDNAs and protein cDNAs were identified using microarray
                                                                                                                                                                                                                            Mitcham
Reed SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 233
                             Sequence
                                                                                                                                                                          New isolated 0772P polypeptides and polynucleotides, useful in therapy, particularly for treating or diagnosing cancer, e.g. c
                                                                                                                                                                                                         WPI; 2003-532352/50
                                                                                                                                                                                                                                                                                                                   (FLIN/)
(RETT/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human 0772P
                                                         technology.
                                                                                                                                                Example 13; Page 28; 371pp; English
                                                                                                                                                                                                                                                                                                                                      (KING/)
                                                                                                                                                                                                                                                                                                                                                                             18-JUN-2001; 2001US-00884441
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                            human; gene therapy; ovarian cancer;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ADA08641;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADA08641 standard; protein; 233
                                                                                                                                                                                                                                                                                                 (REED/)
                                                                                                                                                                                                                                                          (ALBO/)
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                                                                                                                                                                                                                                                                                       (VEDV/
                                                                                                                                                                                                                                                                                                           (FANG/)
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ALGATE P A.
FLING S P.
RETTER M W.
FANGER G R.
REBD S G.
VEDVICK T S.
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                                                                                                                                                                                                                            JL, King
, Vedvick
                                                                                                                                                                                                                                                          ALBONE E.
                                                                                                                                                                                                                                                                                                                                                          MITCHAM J L.
                                                                                                                                                                                                                                                                    HILL P.
                                                                                                                                                                                                                                                                              CARTER D.
                             233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TNYORNKRNIEDALNOLFRN
                                                          The present sequence represents a human ovarian carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               partial protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                 2001US-00907969
                                                                                                                                                                                                                            TS,
100.0%;
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                                                                                                                                                                                                                            Algate
Carter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0,
 Score 105; DB 7;
Pred. No. 1.6e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 105; DB 5;
Pred. No. 1.6e-08;
                                                                                                                                                                                                                           D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          89
                                                                                                                                                                                                                             Hill
                                                                                                                                                                                                                            Fling
Hill P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cancer.
                                                                                                                                                                                                                                       SP,
           DB
                                                                                                                                                                                                                             Albone
                                                                                                                                                                                                                           Retter MW,
lbone E;
           7;
          Length 233;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Length 233;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Indels
                                                                                                                                                                                                                                       Fanger
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                                                                                                                                                                             ovarian
                                                                                                                                                                                      gene
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Matches

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Conservative

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RESULT 9
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                                      The invention describes nucleic acids (I) and the polypeptides (II) they CC encode. The nucleic acids (I) may be used for preventing, diagnosing and CC treating diseases related to their aberrant expression i.e. breast CC cancers. For example, (I) and (II) may be used to treat disorders CC associated with decreased expression by rectifying mutations or deletions CC in a patient's genome that affect the activity of (II) by expressing CC inactive proteins or to supplement the patients own production of (II). And its CC host cell and culturing the cell to express the protein (II). (I) and its CC complementary sequences may also be used as DNA probes in diagnostic CC assays to detect and quantitate the presence of similar nucleic acids in CC samples, and therefore which patients may be in need of restorative CC antibodies against (II) and in assays to identify modulators of (II)'s CC expression and activity. The anti-(II) antibodies, agonists and carcinoma CC immunoassay). This sequence represents a secreted ovarian carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-JUL-2000; 2000US-00617747.
10-AUG-2000; 2000US-00636801.
20-SEP-2000; 2000US-00657857.
04-APR-2001; 2001US-00827271.
18-JUN-2001; 2001US-00884441.
17-JUL-2001; 2001US-00907969.
                                                                                                                                                                                                                                                                                                                                  Example 13; SEQ ID NO 488; 399pp; English
                                                                                                                                                                                                                                                                                                                                                                 treatment of breast cancer.
                                                                                                                                                                                                                                                                                                                                                                            Oncogenic nucleic acids useful for the prevention, diagnosis and
                                                                                                                                                                                                                                                                                                                                                                                                              WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                          Bangur
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        03-JUL-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              breast cancer; restorative therapy; diagnostic agent; immunoassay; secreted ovarian carcinoma antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene therapy; protein therapy; vaccine; antibody inhibition;
breast cancer; restorative therapy; diagnostic agent; immuno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Secreted ovarian carcinoma antigen seqid 488
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          12-FEB-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADF08984;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADF08984 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              23-JUN-1999;
24-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-DEC-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                          cs,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORIXA CORP.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TNYQRNKRNIEDALNQLFRN
                                                                                                                                                                                                                                                                                                                                                                                                                                          Retter MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               99US-00404879
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             98US-00215681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 9908-00338933.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   peptide; 233
                                                                                                                                                                                                                                                                                                                                                                                                                                         Fanger GR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               89
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                                                                                                                                                                                                                                                                                                                                                                                                                                          Hill P;
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Query Match Best Local Similarity

100.0%;

Pred. No. 1.6e-08;

Length 233

Sequence 233

B

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RESULT 10
ABU54859
ID ABU54
CC the carboxy terminal domain comprises a transmembrane anchor with a short CC cytoplasmic domain, and further comprises 9 genomic exons. The gene for CC CA125 repeat domains, nucleic acids (including variants, homologues and CC CA125 repeat domains, nucleic acids (including variants, homologues and CC comprising the nucleic acid, a cultured cell comprising the vector comprising the nucleic acid, a cultured cell comprising the vector of the CA125 repeat units (or their variants, fragments or sequences of the CA125 repeat units (or their variants, fragments or sequences of CC identical to them), a purified antibody that selectively binds to an CC epicope in the receptor-binding domain of CA125 protein, a diagnostic for detecting and monitoring the presence of CA125 protein, a diagnostic for detecting and monitoring at least one repeat unit of the CA125 repeat CC domain including epitope binding sites), a therapeutic vaccine to treat CC disease or disease recurrence associated with elevated CA125 antigen levels or at risk of developing a CC levels (comprising recombinant CA125 repeat domains including epitope binding sites) and an antisense oligonucleotide that inhibits the CC domains are useful as a gold standard for detecting and monitoring the presence of CA125 antigen, which can be used for diagnosing, monitoring cor treating patients with ovarian cancer and other carcinomas where CA125 or treating patients with ovarian cancer and other carcinomas where CA125 or treating patients with ovarian cancer and other carcinomas where CA125 or treating patients with ovarian cancer and other carcinomas where CA125 or treating patients with ovarian cancer and other carcinomas where CA125 or treating patients with ovarian cancer and other carcinomas where CA125 or treating patients with ovarian cancer and other carcinomas where CA125 or treating patients with ovarian cancer and other carcinomas where CA125 or treating patients with ovarian cancer and other carcinomas where CA125 or treating patients with ovarian cancer 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           amino terminal domain; (b) an amino terminal extension; (c) a multiple repeat domain; and (d) a carboxy terminal domain. The extracellular amino terminal comprises 5 genomic exons, the amino terminal extension comprises 4 genomic exons, each repeat unit comprises 5 genomic exons and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Claim 1; Fig 9b; 694pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 vaccine against
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New CA125 molecules, useful as a gold standard for detecting and monitoring the presence of CA125 antigen which can be used for diagnosing, monitoring or treating patients with cancer or for developing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          O'brien T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-APR-2001; 2001US-0284175P
19-JUN-2001; 2001US-029380P
27-SEP-2001; 2001US-09965738
21-DEC-2001; 2001US-0345180P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention relates to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ovarian cancer; carcinoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human; CA125; protein repeat; chromosome 19q 13.2; amino terminal extension; carboxy terminal domain;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human CA125 carboxy terminal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABU54859;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         12-APR-2002; 2002WO-US011734
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Underwood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             o a CA125 protein comprising: (a) an extracellular (b) an amino terminal extension; (c) a multiple
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             B
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vaccine; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
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RESULT 11
ABP31025
ID ABP31
XX ABP31
XX ABP31
XX ABP31
XX AMINO
XX Human
XX Human
XX Homo
XX H
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RESULT 12
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                                                                                                                                                                     Query Match
Best Local S
Matches 20
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mitcham ,
Reed SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               10-AUG-2000;
20-SEP-2000;
04-APR-2001;
                                                                                                                                                                                                                                                                                                                         This invention relates to polypeptides comprising an immunogenic portion of an ovarian carcinoma protein which acts as an immunostimulant and is cytostatic. The polypeptides, polymucleotides, antibodies, fusion proteins, T cell populations and antigen presenting cells that express the polypeptides are useful for stimulating an immune response in a patient and treating ovarian cancer. This sequence represents protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          is expressed. The molecules are also useful for developing a vaccine against cancer. The present sequence is a CA125 repeat protein
                                                                                                                                                                                                                                                                 Sequence 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 3; Page 399-400;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Polypeptides comprising an immunogenic portion of an ovarian carcinoma protein or its variants, useful for stimulating an immune response in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WPI; 2002-164781/21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-JUL-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Amino acid sequence of the 3'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ABP31025 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                               related
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         sapiens.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       immunostimulant; cytostatic; cancer; ovarian carcinoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          20;
                                                                                                                                                                       Similarity
20; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JL, King
, Vedvick
                                                                                                                                                                                                                                                                                                          to the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               and treating ovarian cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
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                                                                                                                       TNYQRNKRNIEDALNQLFRN 20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ; 2000US-00617747.
; 2000US-00636801.
; 2000US-00667857.
; 2001US-00827271.
; 2001US-00884441.
                                                                                                                                                                     100.0%;
larity 100.0%;
Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TS,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     408pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Algate PA,
Carter D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                318
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                                                                             174
                                                                                                                                                                     Score 105; DB 5;
Pred. No. 2.3e~08;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 105; DB 6
Pred. No. 2e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   constant region of 0772P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ጀ
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Hill P, Albone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   6
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                                                                                                                                                                                                                Length 318;
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                                                                                                                                                                  Gaps
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RESULT 13
ADF09090
ID ADF09
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AC ADF09
XX
DT 12-FE
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                                                                                                                                                    Matches
                                                                                                                                                                                                                         The invention relates to an isolated 0772P polypeptide, which has the structure fully defined in the specification. The composition containing the polypeptides, polynucleotides, fusion proteins, antibodies, T-cells or antigen presenting cells are useful for stimulating an immune response and treating ovarian cancer. Detecting the presence of the polynucleotides and polypeptides is useful for diagnosing cancer. Ovarian carcinoma cDNAs and protein cDNAs were identified using microarray technology. The present sequence represents a human ovarian carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                Mitcham
Reed SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human 0772P
           12-FEB-2004
                                                                                                                                                                                                                                                                                                                           Claim 3; SEQ ID NO 594; 371pp; English.
                                                                                                                                                                                                                                                                                                                                                          New isolated 0772P polypeptides and polynucleotides, useful in gene therapy, particularly for treating or diagnosing cancer, e.g. ovari
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ADA08747 standard; protein; 318
                                ADF09090;
                                                    ADF09090
                                                                                                                                                                                             Sequence 318
                                                                                                                                                                                                                  antigen
                                                                                                                                                                                                                                                                                                                                                  cancer.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CART/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-JUN-2001; 2001US-00884441
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (REED/)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (ALGA/)
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                                                                                                                                                              Local
                                                                                                          155
                                                                                                                              \vdash
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ALGATE P A.
FLING S P.
RETTER M W.
FANGER G R.
REED S G.
VEDVICK T S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene therapy;
                                                                                                                                                    20;
                                                                                                                                                                                                                                                                                                                                                                                                               JL, King
, Vedvick
                                                                                                                                                                                                                                                                                                                                                                                                                                                           CARTER D.
HILL P.
                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                 ALBONE E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MITCHAM J L.
                                                                                                                     TNYQRNKRNIEDALNQLFRN 20
                                                                                                        TNYQRNKRNI EDALNQL FRN
                                                    standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            constant region consensus sequence
                                                                                                                                                    Conservative
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           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                JS,
                                                    protein; 318
                                                                                                                                                   100.0%; Score 105; DB 7; 100.0%; Pred. No. 2.3e-08; Prive 0: Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                Algate PA,
Carter D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         cancer;
                                                                                                          174
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Hill P, Albone
                                                                                                                                                                                                                                                                                                                                                                                                                 Retter MW,
lbone E;
                                                                                                                                                                       Length 318;
                                                                                                                                                                                                                                                                                                                                                            e.g. ovarian
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                                                                                                                                                   Gaps
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Secreted ovarian carcinoma antigen segid 594

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RESULT 14
AAE12631
ID AAE12
XX
AC AAE12
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Best Local :
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17-JUL-2000; 2000US-00617747.
10-AUG-2000; 2000US-00636801.
20-SEP-2000; 2000US-00667857.
04-APR-2001; 2001US-00867271.
18-JUN-2001; 2001US-00884441.
17-JUL-2001; 2001US-00907969.
                                                                                                                                                                                                                                                                                                   associated with decreased expression by rectifying mutations or deletions in a patient's genome that affect the activity of (II) by expressing inactive proteins or to supplement the patients own production of (II) additionally, (I) may be used to produce (II), by inserting (I) into a host cell and culturing the cell to express the protein (II). (I) and its complementary sequences may also be used as DNA probes in diagnostic assays to detect and quantitate the presence of similar nucleic acids in samples, and therefore which patients may be in need of restorative therapy. The host cell may also be used as antigens in the production of antibodies against (II) and in assays to identify modulators of (II)'s expression and activity. The anti-(II) antibodies, agonists and activity and antagonists may be used to regulate expression and activity and as antagonists may be used to regulate expression and activity and as immunoassay). This sequence represents a secreted ovarian carcinoma
 AAE12631;
                                 AAE12631 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention describes nucleic acids (I) and the polypeptides (II) they encode. The nucleic acids (I) may be used for preventing, diagnosing and treating diseases related to their aberrant expression i.e. breast cancers. For example, (I) and (II) may be used to treat disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Example 16; SEQ ID NO 594; 399pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      US2003124140-A1.
                                                                                                                                                                                                                                                         Sequence 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Oncogenic nucleic acids useful for the prevention, diagnosis treatment of breast cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bangur CS, Retter MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  23-JUN-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        breast cancer; restorative therapy; diagnostic agent; immunoassay; secreted ovarian carcinoma antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (CORI-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-DEC-1998;
                                                                                                                                                                                                   Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        therapy; protein therapy; vaccine; antibody inhibition;
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                                                                                                                                                                                       20;
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                                                                                                                                                                                                       Similarity
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                                                                                                                                         TNYQRNKRNIEDALNQLFRN 20
                                                                                                                     TNYQRNKRNIEDALNQLFRN 174
                                                                                                                                                                                   100.0%; Score 105; DB 7; llarity 100.0%; Pred. No. 2.3e-08; Conservative 0; Mismatches 0;
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                                 protein; 367 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Fanger
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                                                                                                                                                                                                                   Length 318;
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TNYORNKRNIEDALNOLFRN 20

275

Query Match Best Local Matches

Similarity

100.0%; Score 105; DB 4; 100.0%; Pred. No. 2.7e-08;

0,

Mismatches

0

<u>..</u>

Gaps

0

Length 367;

Sequence 367

AA;

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CC AAD20618-AAD20624 represent cDNAs corresponding to 7 human ovarian and CC ovarian cancer associated protein (collectively known as ovarian cancer CC antigens) genes, and AAB12633-AAB12629 represent the proteins they CC encode. AAB12630-AAB12638 represent human ovarian cancer antigenic CC fragments or variants. Ovarian cancer antigens and their corresponding CC DNAs are used in the prevention, diagnosis and treatment of diseases CC associated with their inappropriate expression. These disorders include CC proliferative disorders, cancer, tumours, respiratory system disorders, CC asthma, haematopoletic disorders, diseases of the immune system, AIDS, CC skin disorders, autcimmune diseases (e.g., rheumatoid arthritis), CC inflammation, allergies, neurological disorders (e.g., Alzheimer's CC disease, Parkinson's disease), septic shock, diabetes, atherosclerosis, CC cardiovascular disorders, endocrine disorders, kidney disorders, gastrointestinal disorders, endocrine disorders and infections. The CC gastrointestinal disorders, endocrine disorders and infections CC gastrointestinal disorders, endocrine disorders and infections of gastrointestinal disorders, endocrine disorders and infections. The CC proteins can also be used to aid wound healing and epithelial cell coroliferation, to prevent skin aging due to sunburn, to maintein organs CC before transplantation, to identify their cognate ligands or binding CC symptoms associated with the disorders mentioned above and in diagnostic communications associated with the disorders mentioned above and in diagnostic communications.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        respiratory system disorder; asthma; haematopoletic disorder; skin aging; immune system disorder; AIDS; skin disorder; autoimmune disease; allergy; rheumatoid arthritis; inflammation; neurological disorder; septite shock; Alzheimer's disease; Parkinson's disease; diabetes; angiogenic disorder; atherosclerosis; cardiovascular disorder; gastrointestinal disorder; epithelial cell proliferation; transplantation; chemotaxis; infection; food additive; wound healing; endocrine disorder; kidney disorder; food additive; wound healing; endocrine disorder; kidney disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-MAR-2000;
23-AUG-2000;
                                          immunoassays e.g., enzyme linked immunosorbent assay (ELISA). The DNA c the invention is used in gene therapy. The present sequence represents human ovarian cancer antigenic fragment of the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; Page 9; 427pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Nucleic acids encoding 7 ovarian cancer antigen polypeptides, useful for preventing, diagnosing and/or treating ovarian cancer and ovarian cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-639119/73
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (HUMA-) HUMAN GENOME SCI INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-MAR-2001; 2001WO-US008585
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     gene therapy; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; ovarian cancer antigen; proliferative disorder; cancer; tumour;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Human gene 1 encoded secreted protein fragment, SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-JAN-2002
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2000US-0227009P.
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AAB12555
AAB12555
AAC AAB12
XX AAB12
XX O7-NO
DE Human
XX Human
XX Human
XX Human
XX Human
XX I7-DE
PR 17-DE
PR 24-SE
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N-PSDB; AAA70076.
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            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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2. /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

3. /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

4. /cgn2_6/ptodata/1/iaa/FCTUS_COMB.pep:*

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US-09-667-857-312
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US-09-667-857-318
US-09-240-796A-17941
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7-857-390 Ice 390, Applic No. 6699664 L INFORMATION: CANT: Mitcham, CANT: King, G CANT: Fling, CANT: Retcer, CANT: Reed, S CANT: Gearter OF INVENTION: REFERENCE: 210 NT APPLICATION NT AP	5 1 2 S	879A-390 i 390, Applic i 648546 i NFORMATION: NT: Mitcham NT: Mitcham NT: Algate, PINVENTION: PINVENTI		40 40 40 41 41 41 41 41 41 41 41 41 41
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NUMBER OF SEQ ID NOS: 455

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APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon E.
APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
APPLICANT: Fling, Steven P.
APPLICANT: Retter, Marc W.
APPLICANT: Rede, Steven G.
APPLICANT: Reed, Steven G.
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C5
CURRENT APPLICATION NUMBER: US/09/667,857
CURRENT APPLICATION NUMBER: US/09/667,857
CURRENT FILING DATE: 2000-09-20
NUMBER OF SEQ ID NOS: 455
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 389
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TYPE: PRI
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US-09-404-879A-389
Sequence 389, Application US/09404879A
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US-09-667-857-389
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; TYPE: PRT
; ORGANISM: Homo sapiens
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; ORGANISM: Homo sapiens
US-09-667-857-389
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APPLICANT: King, Gordon E.
APPLICANT: King, Gordon E.
APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C2
CURRENT APPLICATION NUMBER: US/09/404,879A
CURRENT APPLICATION NUMBER: US/09/404,879A
CURRENT FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 393
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 389
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               h 100.0%; Score 105; DB 4;
Similarity 100.0%; Pred. No. 2.4e-08;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TNYQRNKRNIEDALNQLFRN 689
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TNYQRNKRNIEDALNQLFRN 294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                100.0%; Score 105; DB 4; ilarity 100.0%; Pred. No. 1.2e-08; Conservative 0; Mismatches 0;
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                                                                                                                                                                                                                               THE THERAPY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 833;
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GENERAL INFORMATION:
APPLICANT: Mitcham, Jennifer Lynn
APPLICANT: King, Gordon E.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FO)
TITLE OF INVENTION: COMPOSITIONS AND METHODS FO)
TITLE OF INVENTION: OVARIAN CANCER
FILE REFERENCE: 210121.462C1
CURRENT APPLICATION UNMBER: US/09/338,933
CURRENT FILING DATE: 1999-06-23
UNMBER OF SEQ ID NOS: 312
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 312
LENGTH: 914
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US-09-338-933-312
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; TYPE: PRT
; ORGANISM: Homo sapien
US-09-404-879A-312
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                                                                                                                                           ; ORGANISM: Homo sapien US-09-338-933-312
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Best Local S
Matches 20
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                                                                                    Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 312, Application US/09338933 Patent No. 6488931
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 312, Application US/09404879A Patent No. 6468546
                                                                       Matches
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APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
APPLICANT: Algate, Paul A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C2
CURRENT FILLING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 393
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                   TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Match 100.0%; Score 105; DB 4; Local Similarity 100.0%; Pred. No. 2.7e-08;
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                                 1 TNYORNKRNIEDALNOLFRN 20
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20; Conserv
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TNYQRNKRNIEDALNQLFRN 770
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                                                                       Conservative
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                                                                                      100.0%;
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                                                                       Score 105; DB 4;
Pred. No. 2.7e-08;
; Mismatches 0;
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US-09-667-857-312

Sequence 312, Application US/09667857 Patent No. 6699664 GENERAL INFORMATION:

RESULT 7

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APPLICANT: Mitcham, Jennicold.

APPLICANT: King, Gordon E.

APPLICANT: King, Gordon E.

APPLICANT: Algate, Paul A.

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER

FILE REFERENCE: 210121.462C2

CURRENT APPLICATION NUMBER: US/09/404,879A

CURRENT FILING DATE: 1999-09-24

INUMBER OF SEQ ID NOS: 393

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 388

LENGTH: 772

TYPE: PAT

ORGANISM: Homo sapiens

US-09-404-879A-388

65.7%; Score 69; DB 4; Length 772;
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CURRENT FILING DATE: 2000-09-20
NUMBER OF SEQ ID NOS: 455
SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 312
LENGTH: 914
TYPE: PRT
ORGANISM: Homo sapien
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APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
APPLICANT: Pling, Steven P.
APPLICANT: Retter, Marc W.
APPLICANT: Reger, Gary Richard
APPLICANT: Reed, Steven G.
                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                      Sequence 388, Application US/09667857 Patent No. 6699664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 388, Appl Patent No. 6468546
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APPLICANT: Reed, Steven G.
APPLICANT: Vedvick, Thomas S.
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C5
FILE REFERENCE: 210121.462C5
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                                                                                                                                                                                                                                                                                                    751 TNYQRNKRNIEDA 763
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Fanger, Gary Richard
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Fling, Steven
                                                                                                                                                                                                                                                                                                                                                                              65.7%; Score 69; DB 4; illarity 100.0%; Pred. No. 0.011; Conservative 0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100.0%; Score 105; DB 4; 100.0%; Pred. No. 2.7e-08;
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US-09-248-796A-17941
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US-09-270-767-42105
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                                                          CURRENT APPLICATION NUMBER: US/09/248,796A CURRENT FILING DATE: 1999-02-12 PRIOR APPLICATION NUMBER: US 60/074,725 PRIOR FILING DATE: 1998-02-13 PRIOR PRIOR TILING DATE: 1998-03-13 NUMBER OF SEQ ID NOS: 28208 SEQ ID NO 17941
                                                                                                                                                                                                                                                                                                                           Sequence 17941, Application US/09248796A-Patent No. 6747137
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: HOmburger et al.
APPLICANT: HOmburger et al.
TITLE OF INVENTION: Nucleic acids and proteins
FILE REFERENCE: File Reference: 7326-094
CURRENT APPLICATION NUMBER: US/09/270,767
CURRENT FILING DATE: 1999-03-17
NUMBER OF SEQ ID NOS: 62517
SOFTWARE: Patentin Ver. 2.0
SEQ ID NO 42105
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SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 388
LENGTH: 772
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                                                                                                                                                                                                                                    APPLICANT: Keith Weinstock et al TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO CANDIDA ALBICANS TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPRUTICS FILE REFERENCE: 107196.132
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: Vedvick, Thomas S.
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C5
CURRENT APPLICATION NUMBER: US/09/667,857
CURRENT FILING DATE: 2000-09-20
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ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ORGANISM: Drosophila melanogaster
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                      LENGTH: 336
TYPE: PRT
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ORGANISM: Candida albicans
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LENGTH: 516
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8; Conserv
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40.0%; Pred. No. 30;
Live 7; Mismatches
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; TYPE: PRT; ORGANISM: Human US-09-949-016-6984
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US-09-115-150-5
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; TYPE: PRT
; ORGANISM: Bacterial
US-09-115-150-5
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                                                                                                                                                                                                        APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
FILE REFERENCE: CLOO1307
CURRENT FILING DATE: 2000-04-14
PRIOR APPLICATION NUMBER: 60/241,755
PRIOR APPLICATION NUMBER: 60/231,768
PRIOR FILING DATE: 2000-10-20
PRIOR FILING DATE: 2000-10-03
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR APPLICATION NUMBER: 60/231,498
PRIOR FILING DATE: 2000-09-08
NUMBER OF SEQ ID NOS: 207012
SOFTWARE: FASEUSEQ FOR WINDOWS Version 4.0
SEQ ID NO 6984
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
APPLICANT: Kathariou, Sophia
APPLICANT: Lei, Xiang-Hei
APPLICANT: Lei, Xiang-Hei
TITLE OF INVENTION: Serotype-Specific Probes for Listeria Monocytogenes
FILE REFERENCE: A65378/RFT/DSS
CURRENT APPLICATION NUMBER: US/09/115,150
CURRENT FILING DATE: 1998-07-14
NUMBER OF SEQ ID NOS: 7
SOPTWARE: Patentin Ver. 2.0
SEQ ID NO 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 6984, Application US/09949016
Patent No. 6812339
GENERAL INFORMATION:
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Best Local Similarity
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nes 10; Conservation
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Local Similarity 64.7%;
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                YQRNKRNIEDALNQLFR 19
                                                                      Conservative
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                                                                                     42.4%;
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Pred. No. 25;
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Pred. No. 22;
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FILE REFERENCE: CLOO1307

CURRENT APPLICATION NUMBER: US/09/949,016

CURRENT FILING DATE: 2000-04-14

PRIOR APPLICATION NUMBER: 60/241,755

PRIOR FILING DATE: 2000-10-20

PRIOR FILING DATE: 2000-10-20

PRIOR APPLICATION NUMBER: 60/237,768

PRIOR FILING DATE: 2000-10-03

PRIOR PILING DATE: 2000-10-03

PRIOR FILING DATE: 2000-09-08

PRIOR FILING DATE: 2000-09-08

NUMBER OF SEQ ID NOS: 207012

SOFTWARE: FASTSEQ for Windows Version 4.0

SEQ ID NO 7843

LENGTH: 632
                                                                                                                                                                                                                                                                                                                         APPLICANT: Gary Breton et. al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO KLEBSIELLA
TITLE OF INVENTION: PREUMONIAE FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 2709.2004001
CURRENT APPLICATION NUMBER: US/09/489,039A
CURRENT FILING DATE: 1200-01-27
PRIOR APPLICATION NUMBER: US 60/117,747
PRIOR APPLICATION NUMBER: US 60/117,747
PRIOR TILING DATE: 1999-01-29
NUMBER OF SEQ ID NOS: 14342
SEQ ID NO 7928
SEQ ID NO 7928
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Search completed: October 27, 2005, 17:34:32 Job time: 18.3953 secs
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US-09-489-039A-7928
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; ORGANISM: Human
US-09-949-016-7843
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APPLICANT: VENTER, J. Craig et al.
APPLICANT: VENTER, J. Craig et al.
TITLE OF INVENTION: POLYMORPHISMS IN KNOWN GENES ASSOCIATED
TITLE OF INVENTION: WITH HUMAN DISEASE, METHODS OF DETECTION AND USES THEREOF
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Patent No. 6812339
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Best Local Similarity
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                                                                                                                                                                                                                                                                                             TYPE: PRT
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Local Similarity 64.7%;
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Pred. No. 69
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Pred. No. 38;
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Perfect score:
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seq length: 2000000000
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1: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*

2: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*

3: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*

4: /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*

5: /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*

6: /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*

7: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

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14: /cgn2_6/ptodata/2/pubpaa/US10E_PUBCOMB.pep:*

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     US-10-612-090-15
US-10-612-090-2
US-10-612-090-13
US-10-612-090-13
US-09-884-441-489
US-10-198-053-489
US-10-198-053-489
US-10-860-790-489
US-10-198-053-488
US-10-199-059-488
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Sequence 15, Appl
Sequence 2, Appli
Sequence 489, App
Sequence 489, App
Sequence 489, App
Sequence 489, App
Sequence 488, App
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09-907-969-	-09-907-969-3	441-	09-884-441-	9-91	9-778-320-	10-860-790-38	10-198-053-38	27-	09-907-969-38	9-884-441	S-10-687-03	-10-687-03	-10-142-51	0-243-243A-	-10-333-900-3	-10-858-412-	9-965-738-1	-10-860-790-4	-10-860-790-39	-10-333-900	-10-198-053-48	-10-198-053-3	-09-827-271-39	09-907-969-48	S-09-907-969-39	-09-884-441-48	09-884-441-39	S-10-858-412-2	-10-	-10-860-790-5	0-198-053-59	-09-907-969-59	US-09-965-738-300
e 478	e 312	478,	312,	206,	206	38	38	Sequence 389, App	38	389	'n	۲,	4		30	226,		e 483,	390,	19,	483,	Sequence 390, App	390,	483	390		equence 390,	equence 225	e 27,	equence 594,	quence 59	equence 594,	Sequence 300, App

ALIGNMENTS

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US-10-612-090-15

Sequence 15, Application US/10612090

Publication No. US20040057952A1

GENERAL INFORMATION:
APPLICANT: ImmunoGen, Inc.
TITLE OF INVENTION: ANVIBODIES TO NON-SHED MUCI AND MUCI6, AND USES THEREOF FILE REFERENCE: A8340

CURRENT APPLICATION NUMBER: US/10/612,090

CURRENT FILING DATE: 2003-07-03

PRIOR APPLICATION NUMBER: US 60/393,094

PRIOR FILING DATE: 2002-07-03

NUMBER OF SEQ ID NOS: 33

SOFTWARE: Patentin version 3.2

SEQ ID NO 15

SEQ ID NO 15

ONGANISM: Homo sapiens

US-10-612-090-15

Query Match
Best Local Similarity 100.0%; Score 105; DB 15; Length 20;
Best Local Similarity 100.0%; Pred. No. 1.2e-08; Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

ONGANISM: Homo Sapiens

US-10-612-090-2

US-10-612-090-2

Sequence 2. Application US/10612090

PUBLication No. US20040057952A1

GENERAL INFORMATION:
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; LOCATION: (1)...(1)
; OTHER INFORMATION: Glutathione S-transferase fusion site
US-10-612-090-13
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US-10-612-090-13
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                                                                                                                                                                                     Sequence 489, Application US/09884441 Patent No. US20020119158A1 GENERAL INFORMATION:
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PRIOR FILING DATE: 2002-07-03
NUMBER OF SEQ ID NOS: 33
SOFTWARE: Patentin version 3.2
SEQ ID NO 2
SEQ ID NO 2
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Best Local Similarity
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APPLICANT: Algate, Paul A.
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C7
CURRENT APPLICATION NUMBER: US/09/884,441
CURRENT APPLICATION NUMBER: US/09/884,441
CURRENT FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 489
SOFTWARE: FastSEQ for Windows Version 3.0
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CURRENT APPLICATION NUMBER: US/10/612,090
CURRENT FILING DATE: 2003-07-03
PRIOR APPLICATION NUMBER: US 60/393,094
PRIOR FILING DATE: 2002-07-03
NUMBER OF SEQ ID NOS: 33
NUMBER OF SEQ ID NOS: 33
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TITLE OF INVENTION: ANTIBODIES TO NON-SHED MUC1
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TITLE OF INVENTION: ANTIBODIES TO NON-SHED MUC1 AND MUC16, AND USES THEREOF
FILE REFERENCE: A8340
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ORGANISM: Homo sapiens
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TYPE: PRT
ORGANISM: Artificial Sequence
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100.0%; Pred. No. 7e-08;
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100.0%; Pred. No. 7e-08;
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APPLICANT: Bangur, Chaitanya S.
APPLICANT: Retter, Marc W.
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
APPLICANT: Hill, Paul
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THE
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.46209
CURRENT APPLICATION NUMBER: US/10/198,053
CURRENT APPLICATION NUMBER: 2002-07-17
NUMBER OF SEQ ID NOS: 624
SOPTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 489
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US-09-907-969-489
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US-10-198-053-489
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LENGTH: 178
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CURRENT FILING DATE: 2001-07-17
NUMBER OF SEQ ID NOS: 596
SOFTMARE: FastSEQ for Windows Version 4.0
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C8
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TYPE: PRT
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ORGANISM: Homo
                                       LENGTH: 178
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Local Similarity 100.0%;
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Vedvick, Thomas S.
Carter, Darrick
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Fanger, Gary Richard
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Fling, Steven P
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b. US20030091580A1
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Pred. No. 1
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CURRENT APPLICATION NUMBER: US/09/884,441
CURRENT FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 489
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 488
LENGTH: 233
TYPE: PRT
ORGANISM: Homo sapiens
US-09-884-441-488
RESULT 9
US-09-907-969-488
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CURRENT FILING DATE: 2004-06-02
NUMBER OF SEQ ID NOS: 624
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 489
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Best Local Similarity
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER FILE REFERENCE: 210121.462C11
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APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
APPLICANT: Hill, Paul
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TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             y match 100.0%; Score 105; DB 17; Local Similarity 100.0%; Pred. No. 1.2e-07; nes 20; Conservative 0; Mismatches n.
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                                                                            TNYQRNKRNIEDALNQLFRN 89
                                                                                                                                                       100.0%; Score 105; DB 9; vilarity 100.0%; Pred. No. 1.6e-07; Conservative 0; Mismatches 0;
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                                                                                                                                                                                            Length 233;
                                                                                                                                                           Indels
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Publication No. US20030124140A1
GENERAL INFORMATION:
APPLICANT: Bangur, Chaitanya S.
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
APPLICANT: Hill, Paul
            US-10-860-790-488
; Sequence 488, Application US/10860790
; Publication No. US20050031634A1
; GENERAL INFORMATION:
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TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C9
CURRENT APPLICATION NUMBER: US/10/198,053
CURRENT FILING DATE: 2002-07-17
NUMBER OF SEQ ID NOS: 624
SOFTWARE: FASCSEQ for Windows Version 4.0
SEQ ID NO 488
LENGTH: 233
TYPE: PRT
ORGANISM: Homo sapiens
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Best Local S
Matches 20
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CURRENT FILING DATE: 2001-07-17
NUMBER OF SEQ ID NOS: 596
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 488
LENGTH: 233
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Publication No. US20030091580A1
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APPLICANT: Bangur, Chaitanya S.
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Filing, Steven P.
Retter, Marc W.
Fanger, Gary Richard
Reed, Steven G.
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US-09-965-738-300
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US-10-860-790-488
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LENGTH: 284
TYPE: PRT
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Sequence 300, Application US/09965738

Publication No. US20030143667A1

GENERAL INFORMATION:

APPLICANT: O'Brien, Timothy

TITLE OF INVENTION: Repeat Sequences of the CA125 Gene and Their Use for Diagnostic TITLE OF INVENTION: Therapeutic Interventions

FILE REFERENCE: 40715-258841

CURRENT APPLICATION NUMBER: US/09/965,738

CURRENT FILING DATE: 2001-09-27

PRIOR APPLICATION NUMBER: US 60/284,175

PRIOR PRIOR DATE: 2001-04-17

NUMBER OF SEQ ID NOS: 306

SOFTWARE: PatentIn version 3.0
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                                                                                                                                                                                                                                                                                                 Sequence 594, Appropriate Publication No.
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Best Local :
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T: Albone, Earl INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
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Carter, Darrick
Hill, Paul
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Fanger, Gary Richard
Reed, Steven G.
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Fanger, Gary R.
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APPLICANT: BANGUI, Chaitanya S.
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
APPLICANT: Fanger, Gary R.
APPLICANT: Hill, Paul
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C9
CURRENT APPLICATION NUMBER: US/10/198,053
CURRENT APPLICATION NUMBER: US/10/198,053
CURRENT FILING DATE: 2002-07-17
NUMBER OF SEQ ID NOS: 624
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 594
LENGTH: 318
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NAME/KEY: variant
; LOCATION: 136,248,268
; OTHER INFORMATION: Xaa = Any amino acid
US-10-198-053-594
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US-10-198-053-594
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US-10-860-790-594
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CURRENT APPLICATION NUMBER: US/09/907,969
CURRENT FILING DATE: 2001-07-17
NUMBER OF SEQ ID NOS: 596
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 594
LENGTH: 318
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ORCANISM: Homo sapiens
FEATURE:
NAME/KEY: variant
LOCATION: 136,248,268
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER FILE REFERENCE: 210121.462C11
CURRENT APPLICATION NUMBER: US/10/860,790
CURRENT FILING DATE: 2004-06-02
                                                                                                          APPLICANT: Bangur, Chaitanya S. APPLICANT: Retter, Marc W. APPLICANT: Fanger, Gary R. APPLICANT: Hill, Paul
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NUMBER OF SEQ ID NOS: 624

SOCTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 594

LENGTH: 318

TYPE: PRT

CRANISM: Homo sapiens
FEATURE:
NAME/KEY: variant
LOCATION: 136,248,268
COTHER INFORMATION: Xaa = Any amino acid
US-10-860-790-594

Query Match
Best Local Similarity 100.0%; Score 105; DB 17; Length 318;
Best Local Similarity 100.0%; Pred. No. 2.2e-07;
Matches 20; Conservative 0; Mismatches 0; Indels 0; Gaps

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Search completed: October 27, 2005, 18:31:46

Job time: 65 secs
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A;Molecule type: DNA
A;Residues: 1-841 <OLI>
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ALIGNMENTS

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C;Species Dichelobacter nodosus
C;Species Dichelobacter nodosus
C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
C;Accession: T17396
R;Billington, S.J.; Huggins, A.S.; Johanesen, P.A.; Crellin, P.K.; Cheung, J.K.; Katz, M. Infect. Immun. 67, 1277-1286, 1999
A;Title: Complete nucleotide sequence of the 27-kilobase virulence related locus (vrl) of A;Reference number: Z18734; MUID:99150261; PMID:10024571
A;Accession: T17396
A;Status: preliminary; translated from GB/EMBL/DDBJ
A,Molecule type: DNA
A;Residues: 1-666 ABIL>
A;Cross-references: UNIPROT:032495; EMBL:U20246; NID:g3493323; PID:g2317809; PIDN:AAC3338
A;Cross-references: UNIPROT:032495; EMBL:U20246; NID:g3493323; PID:g2317809; PIDN:AAC3338
C;Superfamily: Dichelobacter nodosus vrlP protein
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T17396
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(;Superfamily: endopeptidase Clp ATP-binding chain
C;Seywords: ATP; molecular chaperone; nucleotide binding;
F;212-219/Region: nucleotide-binding motif A (P-loop)
F;279-284/Region: nucleotide-binding motif B
F;449-556/Region: nucleotide-binding motif B
F;549-784/Region: nucleotide-binding motif B
F;549-556/Region: nucleotide-binding motif B
F;218/Binding site: ATP (Lys) #status predicted
F;555/Binding site: ATP (Lys) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                              vrlP protein - Dichelobacter nodosus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Cross-references: UNIPROT:Q9S6T8; A;Experimental source: strain A3(2)
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47.48;
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Pred. No. 13;
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C;Date: 31-Mar-1993 #sequence_revision 31-Mar-1993 #text_change 09-Jul-2004
C;Accession: JH0591; A38857; B38857; I50692
R;Tsim, K.W.K.; Ruegg, M.A.; Escher, G.; Kroeger, S.; McMahan, U.J.
Neuron 8, 677-689, 1992
A;Title: cDNA that encodes active agrin.
A;Reference number: JH0591; MUID:922322297; PMID:1314620
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Neuron 8, 691-699, 1992

A;Title: The agrin gene codes for a family of basal lamina proteins that differ in functional formula of the second second
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A;Note: translation of the nucleotide sequence is not complete
R;Thomas, W.S.; O'Dowd, D.K.; Smith, M.A.
Dev. Biol. 158, 523-535, 1993
A;Title: Developmental expression and alternative splicing of chick agrin RNA.
A;Reference number: I50692; MUID:93345745; PMID:8393816
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A; Residues: 1112-1783;1795-1955 <RU2>
A; Cross - references: GB:M97371
A; Accession: B38857
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A;Cross-references: UNIPROT:P31696; GB:M94271; NID:g211120; PIDN:AAA48585.1; PID:g211121
A;Experimental source: brain
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                                                                                                                                  F;1294-1448/Domain:
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7,225-273/Domain: Kazal proteinase inhibitor homology «KPI3»
7,225-344/Domain: Kazal proteinase inhibitor homology «KPI4»
7,370-418/Domain: Kazal proteinase inhibitor homology «KPI5»
7,435-483/Domain: Kazal proteinase inhibitor homology «KPI6»
7,435-483/Domain: Kazal proteinase inhibitor homology «KPI6»
7,500-548/Domain: Kazal proteinase inhibitor homology «KPI7»
7,500-548/Domain: Kazal proteinase inhibitor homology «KPI7»
7,500-73/Domain: Laminin-type EGF-like homology «LE1»
7,729-773/Domain: laminin-type EGF-like homology «LE2»
                                                  7856-995/Region: serine/threonine-rich
71150-1219/Region: serine/threonine-rich
71233-1264/Domain: EGF homology <EG1>
71294-1448/Domain: laminin G repeat homology <LG1>
71429-1431/Region: motor neuron attachment (L-R-E)
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hypothetical protein slr1301 - C;Species: Synechocystis sp. A;Variety: PCC 6803 C;Date: 25-Apr-1997 #sequence_r C;Accession: $74703
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S74703
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R;Kaneko, T.; Sato, S.; Kotani, H.; Tanaka, A.; Asamizu, E.; Nakamura, Y.; Miyajima, N.; O, K.; Okumura, S.; Shimpo, S.; Takeuchi, C.; Wada, T.; Watanabe, A.; Yamada, M.; Yasuda, DNA Res. 3, 109-136, 1996
A;Title: Sequence analysis of the genome of the unicellular cyanobacterium Synechocystis
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F;1560-1711/Domain: laminin G repeat homology <LG2>
F;1718-1751/Domain: laminin G repeat homology <LG2>
F;1718-1751/Domain: BGF homology <EG4>
F;1803-1955/Domain: laminin G repeat homology <LG3>
F;1803-1955/Domain: laminin G repeat homology <LG3>
F;86-105,94-126,160-180,169-201,233-252,241-273,304-323,312-344,378-397,386-418,443-462,4
F;86-105,94-126,100-180,1512-1521/Disulfide bonds: #status predicted
F;390,659,764,814/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                                                                                                                                                                                                                                                                                                                                          agrin - electric ray (Discopyge ommata) (fragment)
C;Species: Discopyge ommata
C;Date: 11-Jan-2000 #sequence_revision 11-Jan-2000
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                                                                                                                                      C;Superfamil C;Keywords:
                                                                                                                                                          A;Residues: 1-1328 <SMI>
A;Residues: 1-1328 <SMI>
A;Cross-references: UNIPROT:Q90404; EMBL:L01423; NID:g213102; PID:g213103; PIDN:AAA49224.
C;Superfamily: agrin; EGF homology; Kazal proteinase inhibitor homology; laminin G repeat
                                                                                                                                                                                                                                  A;Status: preliminary; translated from A;Molecule type: mRNA
                                                                                                                                                                                                                                                                             submitted to the EMBL Data Library, A;Reference number: Z22308
A;Accession: T43060
                                                                                                                                                                                                                                                                                                                             R;Smith, M.A.; Magill-Solc, C.; Rupp, F.; Yao, Y.M.M.; Schilling, submitted to the EMBL Data Library, September 1992
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Start
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A;Molecule type: DNA
A;Residues: 1-535 <KAN>
A;Cross-references: UNIPROT:P72839;
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A;Status: nucleic acid sequence not shown; translation not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Reference number: S74322; MUID:97061201; PMID:8905231
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9; Conserv
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                                                                   43.8%;
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                                                                   Score 46; DB 2;
Pred. No. 1.2e+0;
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Pred. No. 45;
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submitted to
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the EMBL Data Library, June 1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               #text_change 09-Jul-2004
                                                                                           Length 1328;
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R;Lin, X.; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y. M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; VanAken, S.E.; Umayam, L.; Tallon, euss, D.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter, Nature 402, 761-768, 1999
                     Nature 399, 323-329, 1999
A; Title: Evidence for late
                                                                                R; Nelson, K.E.; Clayton Garrett, M.M.; Stewart,
                                                                                                                                         C;Species: Thermotoga maritima
C;Date: 11-Jun-1999 #sequence_revision 11-Jun-1999 #text_change 09-Jul-2004
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A;Cross-references: UNIPROT:Q9JT43; GB:AL162757;
A;Experimental source: serogroup A, strain Z2491
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Title: Complete DNA sequence of a serogroup A strain of Neisseria menigitidis Z2491. A;Reference number: A81775; MUID:20222556; PMID:10761919 A;Accession: G81826
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           R;Parkhill, J.; Achtman, I; Holroyd, S.; Jagels, K.; Nature 404, 502-506, 2000
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A;Accession: D84647
                                                                                                                                                                                hypothetical protein - Thermotoga maritima (strain MSB8)
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C;Accession: D84647
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C;Species: Arabidopsis thaliana (mouse-ear cress)
                                                                                                                          C; Accession: B72386
                                                                                                                                                                                                                                  RESULT 8
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;Map position: 2
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nes 9; Conserv
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S.; Jagels, K.; Leather, S.; Mc
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                                                                                                                                                                                                                                                                                                                                                                              Similarity 7; Conserv
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                                                                                                      Clayton,
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    A72200;
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lateral gene transfer between Archaea
2200; MUID:99287316; PMID:10360571
                                                                                  A.M.;
                                                                              R.A.; Gill, S.R.; Gwinn, M.L.; Dodson, R.J.; A.M.; Cotton, M.D.; Pratt, M.S.; Phillips, C.;
                                                                                                                                                                                                                                                                                                                                                                                                    41.9%;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               .; Bentley, S.D.; Churcher, C.; Klee, S.R.; Morel Moule, S.; Mungall, K.; Quail, M.A.; Rajandream
                                                                                                                                                                                                                                                                                                                                                                                                                       DB 2;
                                                                                                                                                                                                                                                                                                                                                                                                    6,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GB:AL157959; NID:g7380371; PIDN:CAB8519
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                                                                                  Haft, D.H.; Hi
A.; Richardson,
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A;Experimental source: strain 9a5c;

A;Experimental source: strain 9a5c;

A;Simpson, A.J.G.; Reinach, F.C.; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R.; Al Briones, M.R.S.; Bueno, M.R.P.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer, H. Bariones, Bueno, M.R.P.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer, H. Bariones, E.C.; Bueno, M.R.P.; Camargo, A.A.; Ferro, J.B.; Franca, S.C.; Franco, M.C.; Frohme J.D.; Unqueira, M.L.; Kemper, E.L.; Kitajima, J.P.; Krieger, J.E.; Kuramae, E.E.; Laigre chado, M.A.; Madeira, A.M.B.N.; Madeira, H.M.F.; Marino, C.L.; Marques, M.V.; Martins, E. A; Authors: Martins, E.M.F.; Matsukuma, A.Y.; Menck, C.F.M.; Miracca, E.C.; Miyaki, C.Y.; F.G.; Nunes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri, D.A. Rodrigues, V.; Rosa, A.J. de M.; de Rosa Jr., V.E.; de Sa, R.G.; Santelli, R.V.; Sawasaki M.; Tsuhako, M.H.; Vallada, H.; Van Sluys, M.A.; Verjovski-Almeida, S.; Vettore, A.L.; Za, R.C.; Palmieri, D.S. A.; Cantells: annotation
                                                                                                                                                                                                                                                                RESULT 10
F70352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Residues: 1-420 -ARN>
A;Cross-references: UNIPROT:Q9WYI9; GB:AE001716; GB:AE000512; NID:g4980853; PIDN:AAD3544J
A;Experimental source: strain MSB8
C;Genetics:
A;Title: The complete genome A;Reference number: A70300; NA;Accession: F70352
                                                                                                                                                      conserved hypothetical protein aq_585 - Aquifex aeolicus C;Species: Aquifex aeolicus C;Species: Aquifex aeolicus C;Date: 08-May-1998 #sequence_revision 08-May-1998 #text_change 09-Jul-2004 C;Accession: F70352
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A;Title: The genome sequence of the plant pathogen Xylella fastidiosa. A;Reference number: A82515; MUID:20365717; PMID:10910347 A;Note: for a complete list of authors see reference number A59328 below
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G82526
                                                                            Nature 392, 353-358, 1998
                                                                                                                                R;Deckert,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C; Superfamily: helicase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Residues: 1-680 <SIM>
A;Cross-references: UNIPROT:Q9PA40; GB:AE004074; GB:AE003849; NID:g9107918; PIDN:AAF8547:
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Nature 406, 151-157, 2000
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C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 09-Jul-2004
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Best Local S
Matches 8
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                                                                                                                                                                                                                                                                                                                                                                        SYQRRKRNVEE 528
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   41.9%;
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                              e of the hyperthermophilic bacterium MUID:98196666; PMID:9537320
                                                                                                                             Gaasterland,
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 44; DB 2;
Pred. No. 1.2e+02;
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70;
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                                                   Aquifex aeolicus
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                                                                                                                                Graham,
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968

SYRRKMLNISDSLRQDIRN

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hyaluronate lyase precursor [imported] - Staphylococcus aureus (strain N315) (;Species: Staphylococcus aureus (;Cspecies: Staphylococcus aureus C;Date: 10-May-2001 #sequence_revision 10-May-2001 #text_change 09-Jul-2004 C;Accession: E90016 R;Kuroda, M.; Ohta, T.; Uchiyama, I.; Baba, T.; Yuzawa, H.; Kobayashi, I.; Cui, L.; ma, A.; Mizutani-Ui, Y.; Kobayashi, N.; Sawano, T.; Inoue, R.; Kaito, C.; Sekimizu, C.; Shiba, T.; Hattori, M.; Ogasawara, N.; Hayashi, H.; Hiramatsu, K. Lancet 357, 1225-1240, 2001
A;Title: Whole genome sequencing of meticillin-resistant Stapylococcus aureus. A;Reference number: A89758; MUID:21311952; PMID:11418146
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Status: preliminary; nucleic acid sequence not shown; translation not A;Molecule type: DNA A;Residues: 1-705 <AQF> A;Cross-references: UNIPROT:066850; GB:AE000697; NID:g2983212; PIDN:AAC0 A;Experimental source: strain VF5
                                                                                                                                                                                                                                         R;Fraser, C.M.; Casjens, S.; Huang, W.M.; Sutton, G.G.; Clayton, R.; Lathigra, R.; son, D.; Peterson, J.; Kerlavage, A.R.; Quackenbush, J.; Salzberg, S.; Hanson, M.; Bowman, C.; Garland, S.; Fujii, C.; Cotton, M.D.; Horst, K.; Roberts, K.; Hatch, Nature 390, 580-586, 1997
A;Authors: Smith, H.O.; Venter, J.C.
A;Title: Genomic sequence of a Lyme disease spirochaete, Borrelia burgdorferi. A;Reference number: A70100; MUID:98065943; PMID:9403685
                                                                                                                                                                                                                                                                                                                                                                                                                         conserved hypothetical protein BB0228 - Lyme disease spirochete C;Species: Borrelia burgdorferi (Lyme disease spirochete) C;Date: 13-Feb-1998 #sequence_revision 13-Feb-1998 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RESULT
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                                                                                                                                                                                                                                                                                                                                                                                                            Accession: D70128
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Best Local
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Best Local :
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Best Local
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8; Conserv
                                                             Similarity 9; Conserv
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NYQRNKRNIEDALNQLFRN: |: | | | | | | | |
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larity 42.1%;
Conservative
                                                               Conservative
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                                                                                41.98;
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Pred. No. 1.2e
5; Mismatches
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Pred. No. 1.4e+02;
4; Mismatches 7;
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                                                         Score 44; DB 2; Lo
Pred. No. 1.7e+02;
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1.2e+02;
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C.A.; Venter, J.C.

CCA.; Venter, J.C.

Science 270, 397-403, 1995

Science 270, 397-403, 1995

A;Title: The minimal gene complement of Mycoplasma genitalium.
A;Reference number: A64200; MUID:96026346; PMID:7569993

A;Accession: H64218

A;Accession: H64218

A;Status: preliminary; nucleic acid sequence not shown; transl
A;Molecule type: DNA
A;Residues: 1-475 <TIGR>
A;Cross-references: UNIPROT:P47416; GB:U39695; GB:L43967; NID
A;Cross-references: UNIPROT:P47416; GB:U39695; GB:L43967; NID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 R;Fraser, C.M.; Gocayne, J.D.; White, O.; Adams, M.D.; Clayton, R.A.; Fleischmann, R.D.; M.; Fuhrmann, J.; Nguyen, D.; Utterback, T.R.; Saudek, D.M.; Phillips, C.A.; Merrick, J.N
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            preprotein translocase secY - Mycoplasma genitalium
C;Species: Mycoplasma genitalium
C;Date: 17-Nov-1995 #sequence_revision 17-Nov-1995 #text_change 09-Jul-2004
C;Accession: H64218
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A; Residues: 1-1879 <WIL>
A; Cross-references: UNITROT: Q18210;
A; Cross-references: Clone C26C6
                                                                                                                                                                        A;Genetic code: SGC3
C;Superfamily: preprotein translocase secY
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A;Map position: 1
A;Introns: 42/3; 295/2; 375/2; 489/3; 665/2; 980/3; 1233/2; 1292/1; 1325/3; 1349/3; 1486/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-references: EMBL:Z72517; PIDN:CAA96697.1; GSPDB:GN00019; CESP:C26C6
A;Experimental source: clone T28F4
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Molecule type: DNA
A;Residues: 1-1879 <WI2>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Reference number:
A;Accession: T25434
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A; Accession: T19481
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Best Local S
Matches 8
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Best Local
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8; Conserv
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                                                                                      Score 43.5; I
Pred. No. 95;
5; Mismatches
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                                           EDALNOL 17
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Pred. No. 3.3e+02;
6; Mismatches 2;
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439

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RESULT 15
G71611
hypothetical protein PFB0560w - malaria parasite (Plasmodium falciparum)
C;Species: Plasmodium falciparum
C;Species: Particle: Clayton, R; Aravind, L; Koonin, E.V.;
C;Carcession: G71611
R;Gardher, M.J.; Tetteelin, H.; Carucci, D.J.; Cummings, L.M.; Aravind, L.; Koonin, E.V.;
C;Carcession: G71611
A;Carcession: Cromesone 2 sequence of the human malaria parasite Plasmodium falciparum.
A;Reference number: A71600; MUID:99021743; PMID:9804551
A;Accession: G71611
A;Scarus: preliminary; nucleic acid sequence not shown; translation not shown
A;Molecule type: DNA
A;Residues: 1-2206 cGAR-
A;Cross-references: GB:AE001403; GB:AE001362; NID:93845216; PIDN:AAC71901.1; PID:9384521
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5 bacteroides
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42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	42.9	43.3	43.3	43.8	43.8	43.8
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Q6w3m3 alvinella p	Q8idw4 plasmodium	Q71w10 listeria mo		Q8mut3 tetrahymena	Q8iky4 plasmodium			Q8t4v4 plasmodium	O99877 trypanosoma	Q6bz30 debaryomyce	Q8i5y2 plasmodium	Q90404 discopyge o	Q8jl89 ectromelia

ALIGNMENTS

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OBWXI7; O1-MAR-2002 (TrEMBLrel. 20, Created)
O1-MAR-2003 (TrEMBLrel. 23, Last sequence update)
O1-MAR-2004 (TrEMBLrel. 26, Last annotation update)
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Lloyd K.O., Yin B.W.T.;
Submitted (SEP-2003) to the
EMBL; AF361486; AAK74120.3;
HSSP; Q9D1H1; 1IVZ.
                                                                                                                                                                                                                                                                                                                                      Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                 MEDLINE=21646939; PubMed=11786729; O'Brien T.J., Beard J.B., Underwood
                                                                                                                                                                                                                                                                                                                                                                                                                                    Ovarian cancer related tumor marker CA125
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01-MAR-2004 (TrEMBLrel. 26, 
01-MAR-2004 (TrEMBLrel. 26,
                                                                                                    York L.;
"The CA 125 gene:
                                                                                                                                             York
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InterPro; IPR000082; SEA.
Pfam; PF01390; SEA; 20.
SMART; SM00200; SEA; 10.
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Mammalia; Eutheria; Primates;
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                                                                                                                                                                                                      SEQUENCE FROM N.A.
MEDLINE=21646939;
                                                                                                                                                                                                                                                                                                    NCBI_TaxID=9606;
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iol. Chem. 276:27371-27375(2001).
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Last annotation update)
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Pred. No. 3.3e-06;
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Pred. No. 4.9e-07;
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Catarrhini; Hominidae;
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                                                                                                                                                                    DOI=10.1159/000050638;
d L.J., Dennis R.A., Sa
                                                                                                           superstructure
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| SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Whole body;
STRAIN=C57BL/6J; TISSUE=Whole body;
MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Ca
Shibata K., Itoh M., Aizawa K., Kitsunai T., Tashiro H.,
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Q9D1H1

Q9D1H1

01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Mus musculus 18-day embryo whole body cDNA, RIKEN full-length enriched library, clone:1110008114 product:hypothetical SEA domain containing protein, full insert sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            O'Brien T.J., Underwood L.J., Beard J.B.;
Submitted (CCT-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AF414442; AAL65133.2; -.
Genew; HGNC:15582; MUC16.
Pfam; PF01390; SEA; 51.
SMART; SM000200; SEA; 53.
PROSITE; PS00152; ATPASE ALPHA BETA; UNKNOWN_2.
PROSITE; PS00154; SEA; 11.
                                                                                                                                                                                                                                                The FANTOM Consortium, the RIKEN Genome Exploration Research Group Phase I & II "Analysis of the mouse transcriptome based on functional 60,770 full-length cDNAs.";
Nature 420:563-573 (2002).
                                                                                                                       SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Whole body:
STRAIN=C493914; PubMed=11042159; DOI=10.1101/gr.145100;
MEDLINE=20493914; PubMed=11042159; DOI=10.1101/gr.145100;
Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata
Konno H., Okazaki Y., Muramateu M., Hayashizaki Y.;
"Normalization and subtraction of cap-trapper-selected cDI
prepare full-length cDNA libraries for rapid discovery of
Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Carninci P., Hayashizaki Y.;
"High-efficiency full-length cD
Meth. Enzymol. 303:19-44(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Whole body;
MEDLINE=99279253; PubMed=10349636;
                                                                                                                                                                                                                                                                                                                                                                                         "Functional annotation of a Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=C57BL/6J; TISSUE=Whole body;
MEDLINE=21085660; PubMed=11217851; DOI=10.1038/35055500;
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Mammalia; Eutheria; Rodentia;
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Pred. No. 1.1
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. No. 1.1e-05;
smatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                         mouse cDNA collection.";
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                                                                                                                                                                                      Shibata K.,
                                Carninci
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RA Adachi J., Aizawa K., Akahira S., Akimura T., Arai A., Aono H.,

RA Arakawa T., Bono H., Carninci P., Pukuda S., Fukunishi Y., Furuno M.,

RA Hanagaki T., Hara A., Hayatsu N., Hiramoto K., Hiraoka T., Hori F.,

RA Imotani K., Ishii Y., Itoh M., Izawa M., Koya S., Kurihara C.,

RA Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,

RA Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,

RA Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M.,

RA Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,

RA Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai T.,

RA Sano H., Sasaki D., Shibata K., Shibata Y., Shinagawa A., Shiraki T.,

RA Sano H., Sasaki D., Shibata K., Shibata Y., Shinagawa A., Shiraki T.,

RA Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T.,

RA Tejima Y., Toya T., Yamamura T., Yasunishi A., Yoshida K., Yoshino M.,

RA Muramatsu M., Hayashizaki Y.,

Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.

DR EMBL, AK003577; BAB22869.1; -.

DR MGD; MGI:192098; 1110008114Rik.

DR PGB; 1172, NMR, A=60-190.

DR MGD; MGI:192098; 1110008114Rik.

DR PGRSTE; PSS0024; SEA.

DR PROSITE; PSS0024; SEA.

KM Hybothetical broften.
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Best Local
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        8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 88895; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 8889; 88895
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea; Anopheles.
NCBI_TaxID=180454;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2004 (TrEMBLrel. 01-MAR-2004 (TrEMBLrel.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Anopheles Genome Sequencing Consortium; Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases.
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STRAIN=C57BL/6J; TISSUE=Whole
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GO:0016020; C:membrane; IEA.
GO:0005234; F:glutamate-gated ion channel activity; IEA.
GO:0005216; F:ion channel activity; IEA.
GO:0004970; F:ionotropic glutamate receptor activity; IE
GO:0005267; F:potassium channel activity; IEA.
GO:0005215; F:receptor activity; IEA.
GO:0005215; F:transporter activity; IEA.
GO:0005215; F:transport; IEA.
GO:0006811; P:ion transport; IEA.
GO:0006813; P:potassium ion transport; IEA.
                                                                                                                                                                                                                                                                                                                                                                                                                                       preliminary data.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CAUTION: The sequence shown here EMBL/GenBank/DDBJ whole genome sh
                                                                                                                                                                                                                                                                                                                                                                 AAAB01008849; EAA07123.1; -. P19491; 1FTK.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ORFNames=ENSANGG00000021275;
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75.0%;
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26,
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Last annotation update)
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Pred. No.
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hiwagi K.,
hiki M.,
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RESULT 7
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Carlton J.M., Angiuoli S.V., Suh B.B., Kooij T.W., Pertea M.,
Silva J.C., Ermolaeva M.D., Allen J.E., Selengut J.D., Koo H.L.,
Silva J.C., Ermolaeva M.D., Allen J.E., Selengut J.D., Koo H.L.,
Peterson J.D., Pop M., Kosack D.S., Shumway M.F., Bidwell S.L.,
Peterson J.D., van Aken S.E., Riedmuller S.B., Feldblyum T.V.,
Shallom S.J., van Aken S.E., Riedmuller S.B., Feldblyum T.V.,
Cho J.K., Quackenbush J., Sedegah M., Shoalbi A., Cummings L.M.,
Florens L., Yates F.R. III, Raine J.D., Sinden R.E., Harris M.A.,
Cunningham D.A., Preiser P.R., Bergman L.W., Vaidya A.B.,
van Lin L.H., Janse C.J., Waters A.P., Smith H.O., White O.R.,
van Lin L.H., Janse C.J., Waters A.P., Smith H.O., White O.R.,
Salzberg S.L., Venter J.C., Fraser C.M., Hoffman S.L., Gardner M.J.,
Carnect D.J.:
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Eukaryota; Alveolata; Api
NCBI_TaxID=73239;
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InterPro; IPR011591; Botulinum.
ProDom; PD001963; Botulinum; 1.
                                                                                                                                                                                                                                                                                                                                                  "Genome sequence and comparative analysis of the model rodent malaria parasite Plasmodium yoelii yoelii.";
Nature 419:512-519(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-MAR-2004 (TrEMBLrel.
01-MAR-2004 (TrEMBLrel.
01-MAR-2004 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR001320; Ion_glu_receptor.
InterPro; IPR001622; K+Channel_pore.
InterPro; IPR001628; NMDA_receptor.
InterPro; IPR001311; SBP/glu_receptor.
Pfam; PF00060; Lig_chan; 1.
PRINTS; PR00177; NMDARECEPTOR.
                                                                                                                                                                                                                                       Hypothetical SEQUENCE 39
                                                                                                                                                                                                                                                                                                                                                                                              Carucci D.J.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Name=PY05864;
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                                                                                                                                                                                                                                                                                                          preliminary data.
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390 AA; 4
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52.6%;
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                                                                                                                                                                                              Score 52; DB Pred. No. 18;
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                                                                                                                                                                                                                                       0FA3B215E0A688EA CRC64;
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annotation updat
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Q9S6T8 Q9S6T8; 01-MAY-2000 01-MAY-2000 01-OCT-2003

(TrEMBLrel. (TrEMBLrel.

13, 13, 25,

Created)

Last sequence update)
Last annotation update)

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Nature 417:141-147(2002).
EMBL; AL939116; CDB40873.1; -.
PJR; T36384, T36384.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Q9XZ81
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF00004; AAA; 1.
Pfam; PF02861; Clp_N; 2.
Pfam; PF02151; UVR; 1.
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InterPro; IPR003959; AAA ATPase centr.
InterPro; IPR001270; Chaprnin_cTpA/B.
InterPro; IPR001776; Clp N.
InterPro; IPR001943; UvrB/C.
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MEDLINE=21996410; Pu
       STRAIN=3D7;
MEDLINE=20078856;
Taylor H.M., Kyes
                                                                                                                                                                                                                                                                                                                                              01-NOV-1999 (TrEMBLrel. 12,
01-NOV-1999 (TrEMBLrel. 12,
01-DEC-2001 (TrEMBLrel. 19,
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                                                                                                                                                                                                               Plasmodium falciparum
Eukaryota; Alveolata;
                                                                                                                                                                                                                                                                                                                  DBL alpha protein
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01-NOV-1999
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                                                                                                                                                                     NCBI_TaxID=5833;
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                                                                                                                SEQUENCE FROM N.A.
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GO:0003677; F:DNA binding; IEA.
GO:0004518; F:nuclease activity; IEA.
GO:0000166; F:nucleotide binding; IEA.
GO:0008233; F:peptidase activity; IEA.
GO:00052515; F:protein binding; IEA.
GO:000529; F:nucleotide-excision repair; IEA.
GO:001538; P:protein metabolism; IEA.
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          PubMed=10613695;
S.A., Harris D.,
                                                                                                                                                                                                                                                                                                                      (Fragment)
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                                                                                                                                                                                                                   Haemosporida; Plasmodium
          DOI=10.1016/S0166-6851(99)00159-0; Kriek N., Newbold C.I.;
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Howarth S.,
C., O'Neil S.,
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Mol. Biochem.
EMBL; AF133853
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Ornston L.N., Weissenbach J., Marliere P., Cohen G.N., Medique C.;
"Unique features revealed by the genome sequence of Acinetobacter sp.
Nucleic Acids Res. 0:0-0(2004).
EMBL; CR543861; CAG68102.1; -.
Complete proteome.
                                                                                                                                                                                                                                                                  01-MAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2002 (TrEMBLrel. 20, Last sequence update)
01-MAR-2002 (TrEMBLrel. 20, Last annotation update)
Homologous to secreted protein sopD.
OrderedLocusNames=STM0972;
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MEDLINE=21534948; PubMed=11677609; DOI=10.1038/35101614; McClelland M., Sanderson K.E., Spieth J., Clitton S.W., Latreille F. Courtney L., Porwollik S., Ali J., Dante M., Du F., Hou S., Layman Leonard S., Nguyen C., Scott K., Holmes A., Grewal N., Mulvaney E., Ryan B., Sun H., Florea L., Miller W., Stoneking T., Nhan M., Waterston R., Wilson R.K.;
                                                                                                                                                                                                                                                                                                                                                                             Q8ZQC8;
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SEQUENCE
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                                                                                                                                                SEQUENCE FROM N.A.
                                                                                                                                                                                    NCBI_TaxID=602;
                                                                                                                                                                                                            Bacteria; Proteobacteria;
Enterobacteriaceae; Salmo
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Q7SB96;
01-MAR-2004
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-!- CAUTION: The sequence shown here is derived EMBL/GenBank/DDBJ whole genome shotgun (WGS)
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Bukaryota; Fungi; Ascomycota; Pe

Eukaryota; Fungi; Sordariales;

Sordariomycetidae; Sordariales;

NCBI_TaxID=5141;
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01-MAR-2004 (TrEMBLrel.
01-MAR-2004 (TrEMBLrel.
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EMBL; AE008741; AALL19906.1; -.
Complete proteome.
SEQUENCE 319 AA; 37782 MW;
                                                                                                                                                                                               Hypothetical SEQUENCE 3
                                                                                                                                                                                                                                          preliminary data.
EMBL; AABX01000171; EAA33666.1; -.
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Name=NCU05716.1;
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PF03556; DUF298; 1.
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Q9GQI6;
01-MAR-2001
 Q8KNH3;
01-OCT-2002
                       Q8KNH3
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Wang C.-M., Chen C.-L., Robertson H.M., Fahrbach S.E.;
"A new member of the GM130 golgin subfamily is expressed in the lobe anlagen of the metamorphosing brain of Manduca sexta.";
J. Insect Sci. 3:35-35(2003).

EMBL; AF244891; AAG36875.1; -.

EMBL; AF244891; AAG36875.1; -.
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01-MAR-2001 (TrEMBLrel. 16,
01-MAR-2001 (TrEMBLrel. 16,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Manduca sexta (Tobacco hawkmoth) (Tobacco hornworm).
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Lepidoptera; Glossata; Ditrysia; Sph
Sphingidae; Sphinginae; Manduca.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Billington S.J., Huggins A.S., Johanesen P.A., Crellin P.K., Cheung J.K., Katz M.E., Wright C.L., Haring V., Rood J.I.; Cheung J.K. action of the 27-kilobase virulence related locus (vrl) of Dichelobacter nodosus: evidence for extrachromosomal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Bacteroides nodosus (Dichelobacter nodosus).
Bacteria, Proteobacteria; Gammaproteobacteria;
Cardiobacteriaceae; Dichelobacter.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=96118688; PubMed=7496519;
Haring V., Billington S.J., Wrigh
Rood J.I.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   "Delineation of the virulence-related locus
                                                                                                                                                                                         Similarity 9; Conserv
                                                                                                                              NYQRNKRNIEDALNQL 17
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                                                                                                       NLERDLRNIEDKYNOI 155
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PRELIMINARY;
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55.6%;
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                                                                                                                                                                                         Score 48; DB Pred. No. 1.4e 3; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 48; DB 2; L
Pred. No. 1.3e+02;
1; Mismatches 7;
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  797
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RESULT
Q82EB8
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Science 297:1173-1176(2002).

REMBL; AF497482; AAM94782.1; -.

REMBL; AF497482; AAM94782.1; -.

RESSP; PO3815; JJBK.

GO; GO:0005524; F:ATP binding; IBA.

GO; GO:0003677; F:NNA binding; IBA.

GO; GO:0004518; F:nuclease activity; IEA.

GO; GO:0000166; F:nuclease activity; IEA.

GO; GO:0000515; F:protein binding; IEA.

GO; GO:0005219; P:nucleotide-excision repair; IEA.

GO; GO:00005219; P:nucleotide-excision repair; IEA.

GO; GO:00006219; P:nucleotide-excision repair; IEA.

GO; GO:00005219; P:nucleotide-excision rep
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ATP-binding.
797 P
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01-MAR-2004
Calr4.
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Q1-UIN-2003 (TrEMBLrel. 24, Created)
Q1-UIN-2003 (TrEMBLrel. 24, Last sequence up
Q1-QCT-2003 (TrEMBLrel. 25, Last annotation
Putative ATP-dependent Clp protease.
Name=clpC2; OrderedLocusNames=SAV4697;
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STRAIN-MRRL 15839;

MEDLINE-22171414; PubMed-12183629; DOI=10.1126/science.1072105;

Ahlert J., Shepard E., Lomovskaya N., Zazopoulos E., Staffa A.,

Bachmann B.O., Huang K., Fonstein L., Czisny A., Whitwam R.E.,

Farnet C.M., Thorson J.S.;

"The calicheamicin gene cluster and its iterative type I enediy."
                                 "Complete genome sequence and comparative microorganism Streptomyces avermitilis."; Nat. Biotechnol. 21:526-531(2003).
                                                                                                                                                                                                                                                                                                                                                                                                                               Streptomyces avermitilis.

Bacteria; Actinobacteria; Actinobacteridae; Actinomycetales; Streptomycineae; Streptomycetaceae; Streptomyces.
                                                                                                                                                                    MEDLINE=22608306; PubMed=12692562; Ikeda H., Ishikawa J., Hanamoto A., Sakaki Y., Hattori M., Omura S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Micromonospora echinospora (Micromonospora purpurea).
Bacteria, Actinobacteria; Actinobacteridae; Actinomycetales;
Micromonosporineae; Micromonosporaceae; Micromonospora.
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                                                                                                                                                                                                                                                                                            STRAIN=MA-4680;
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                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=33903;
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(TrEMBLrel. 26, Last annotation update)
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47.4%; Pred. No. 1.5e+02;
tive 3; Mismatches 7
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GO; GO:0005677; F:DNA binding; IEA.
GO; GO:0004518; F:nuclease activity; IEA.
GO; GO:0004518; F:nucleotide binding; IEA.
GO; GO:0000456; F:nucleotide binding; IEA.
GO; GO:00005515; F:protein binding; IEA.
GO; GO:0005515; F:protein binding; IEA.
GO; GO:0005289; P:nucleotide-excision repair; IEA.
GO; GO:0019538; P:protein metabolism; IEA.
GO; GO:0019538; P:protein metabolism; IEA.
R InterPro; IPR003593; AAA ATPase centr.
InterPro; IPR003593; AAA ATPase centr.
InterPro; IPR003595; AAA ATPase centr.
R InterPro; IPR001376; Claprnin_ClapA/B.
InterPro; IPR0014176; Clp.N.
R InterPro; IPR0014176; Clp.N.
R InterPro; IPR0014176; Clp.N.
R InterPro; IPR0014176; Clp.N.
R Pfam; PF02861; Clp.N; 2.
R Pfam; PF02861; Clp.N; 2.
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STRAIN-MA-4680 / ATCC 31267 / NCIMB 12804 / NRRL 8165;
MEDLINE-21477403; PubMed-11572948; DOI=10.1073/pnas.211433198;
Omura S., Ikeda H., Ishikawa J., Hanamoto A., Takahashi C.,
Shinose M., Takahashi Y., Horikawa H., Nakazawa H., Osonoe T.,
Kikuchi H., Shiba T., Sakaki Y., Hattori M.;
"Genome sequence of an industrial microorganism Streptomyces
avermittils: deducing the ability of producing secondary
metabolites.";
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ATP-binding; Complete proteome.
SEQUENCE 841 AA; 93023 MW;
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P03815; 1JBK.
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9; Conserv
SNYERMKNKVADELKOHER
                                                                            TNYQRNKRNIEDALNQLFR 19
                                                                                                                                                              Conservative
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Pred. No. 1.6e+02;
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Search completed: October 27, Job time: 61.1395 secs 2005, 18:55:10

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Minimum
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result

Regult No.	Score	% Query Match	Length	DB	ID	Description
1	107		21	8	ADJ66743	Adj66743 Human Muc
2	107	100.0	108	œ	667	6729 Human
ω	107	•	108	8	ADJ66740	66740 Human
Α,	107	٠	174	7	ADM30756	30756 Human
y,	107		178	տ	ABP30979	0979 Predic
σ	107		178	7	ADA08642	Ada08642 Human 077
7	107	•	178	7	ADF08985	S
80	107	100.0	233	տ	ABP30978	Abp30978 Extracell
9	107	٠	233	7	ADA08641	Ada08641 Human 077
10	107	•	233	7	ADF08984	Adf08984 Secreted
11	107	•	284	6	ABU54859	Abu54859 Human CA1
12	107	•	318	σ	ABP31025	Abp31025 Amino aci
13	107	•	318	7	ADA08747	Ada08747 Human 077
14	107		318	7	ADF09090	Adf09090 Secreted
15	107	•	367	4	AAE12631	1
16	107	•	438	ω	AAB12555	Huma
17	107	٠	438	4	AAE12623	w
18	107	•	438	ъ	ABP30973	3 Part
19	107	100.0	438	5	ABP30899	0772
20	107	•	438	7	ADA08636	Ada08636 Human 077
21	107	٠	438	7	ADA08543	Ada08543 Human ova
22	107	•	438	7	ADF08886	Adf08886 Secreted
23	107	100.0	438	7	ADF08979	Adf08979 Secreted
24	107	•	438	7	ADG46173	ω
25	107	100.0	439	σ	ABU54709	Abu54709 Human CA1

Sequence 21 AA; specification.

45	44	43	42	41	40	39	38	37	36	35	34	ω ω	32	31	30	29	28	27	
107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	107	
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
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ABB50283	AAB95836	ADN40451	ADG46095	ADF08808	ADF08974	ADA08465	ADA08631	ABP30896	ABP30968	AAB99203	AAB12552	ADG46172	ADF08885	ADA08542	ABP30898	AAB12554	ADS94303	ADS94302	
Abb50283	Aab95836	Adn40451	Adg46095	Adf08808	Adf08974	Ada08465	Ada08631	Abp30896	Abp30968	Aab99203	Aab12552	Adg46172	Adf08885	Ada08542	Abp30898	Aab12554	Ads94303	Ads94302	
HOST-1 ov	Human pro	Human bre	Human ova	Secreted	Secreted	Human ova	Human 077	0772P pro	Hypotheti	Human ova	Human ova	Human ova	Secreted	Human ova	0772P clo	Human ova	CA 125/07	CA 125/07	

ALIGNMENTS

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RESULT 1
ADJ66743
ID ADJ66743
ID ADJ66743
ID ADJ66743
ID ADJ6674
AC ADJ6
AC AD
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Vater CA;
                                                                                                            This invention relates to a novel isolated monoclonal antibody that specifically binds to an epitope of a non-shed extracellular portion of a shed antigen or of human Mucl or Mucls protein. The invention may be useful for the development of compounds with a cytostatic or for gene therapy. The composition and methods are useful in diagnosing, treating or monitoring malignancies, such as breast or ovarian cancer. The present sequence is that of a peptide which was used for raising antibodies to the extracellular, non-shed region of Mucl6 and which is claimed in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     monoclonal antibody; epitope; non-shed extracellular portion; shed antigen; human; Muc1; Muc16; cytostatic; gene therapy; malignancy; breast cancer; ovarian cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       New antibody to non-shed human Muc1 or Muc16, useful for diagnosing, treating or monitoring malignancies, such as breast or ovarian cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 14; SEQ ID NO 16; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2004-091350/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03-JUL-2002; 2002US-0393094P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Human Muc1/Muc16 protein-related peptide SeqID16.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-MAY-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ADJ66743 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (IMMU-) IMMUNOGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chittenden T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Goldmakher V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               21
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Sneider-Mulready K;

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ADJ6672

ADJ66 XX ADJ66 XX ADJ66 XX ADJ66 XX ADJ66 XX ADJ66 XX MODE ADJ60 XX MODE ADJ60 AD
RESULT 3
ADJ66740
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                                                                                                                                                                                                                                                                                                          Query Match
Best Local S
Matches 21
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Best Local Similarity
Matches 21; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Payne G,
Vater CA;
                                                                                                                                                                                                                                                                                                                                                                                                                         specifically binds to an epitope of a non-shed extracellular portion of a shed antigen or of human Mucl or Mucl6 protein. The invention may be useful for the development of compounds with a cytostatic or for gene therapy. The composition and methods are useful in diagnosing, treating or monitoring malignancies, such as breast or ovarian cancer. The present sequence is that of a Muc epitope of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New antibody to non-shed human Muc1 or Muc16, useful for diagnosing, treating or monitoring malignancies, such as breast or ovarian cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03-JUL-2003; 2003WO-US020907.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 monoclonal antibody;
shed antigen; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human Muc16 epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   06-MAY-2004
              Human Muc16
                                                     06-MAY-2004
                                                                                          ADJ66740;
                                                                                                                             ADJ66740 standard; protein; 108
                                                                                                                                                                                                                                                                                                                                                                                        Sequence 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               This invention relates to a novel isolated monoclonal antibody that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               03-JUL-2002; 2002US-0393094P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             15-JAN-2004.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              breast
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                                                                                                                                                                                                                                                                                                            21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cancer;
                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FRNSSIKSYFSDCQVSTFRSV 21
                                                                                                                                                                                                                                FRNSSIKSYFSDCQVSTFRSV 38
                                                                                                                                                                                                                                                         FRNSSIKSYFSDCQVSTFRSV 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FRNSSIKSYFSDCOVSTFRSV 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQ ID NO 2; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Chittenden T,
          GST fusion protein amino acid sequence SeqID13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                            Conservative
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A
                                                 (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 entry.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            epitope; non-shed extracellular portion;
Muc1; Muc16; cytostatic; gene therapy; malignancy;
                                                                                                                                                                                                                                                                                                          100.0%; Score 107; DB 8;
100.0%; Pred. No. 1.7e-09;
Live 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%; Score 107; DB 8; 100.0%; Pred. No. 2.6e-10; tive 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Goldmakher V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  108
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                                                                                                                                                                                                                                                                                                                                               Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sneider-Mulready
                                                                                                                                                                                                                                                                                                            Indels
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 specifically binds to an epitope of a non-shed extracellular portion of a shed antigen or of human Mucl or Mucls protein. The invention may be useful for the development of compounds with a cytostatic or for gene therapy. The composition and methods are useful in diagnosing, treating or monitoring malignancies, such as breast or ovarian cancer. The present sequence is that of the human Mucl6 GST fusion protein which was used in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Payne G,
Vater CA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  monoclonal antibody; epitope; shed antigen; human; Muc1; Muc breast cancer; ovarian cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADM30756 standard; protein; 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     15-JAN-2004
          Young PE,
                                                                                                                                                                                                                                                                                        cytostatic;
                                                                                                                                                                                                                                                                                                                                               Human cancer linked protein referred to as 192292 SeqID 4.
                                                                                                                                                                                                                                                                                                                                                                                                                             ADM30756;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 108 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This invention relates to a novel isolated monoclonal antibody that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; SEQ ID NO 13; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2004-091350/09.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    03-JUL-2002; 2002US-0393094P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo sapiens
                                                                                        07-MAR-2002; 2002US-0362527P
                                                                                                                             07-MAR-2003; 2003WO-US007147
                                                                                                                                                                    18-SEP-2003.
                                                                                                                                                                                                           WO2003075854-A2
                                                                                                                                                                                                                                                Homo sapiens
                                                                                                                                                                                                                                                                                                            human;
                                                                                                                                                                                                                                                                                                                                                                                        20-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New antibody to non-shed human Muc1 or Muc16, treating or monitoring malignancies, such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (-DWMI)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO2004005470-A2
                                                 (AVAL-) AVALON PHARM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   18
                                                                                                                                                                                                                                                                                          cancer-related gene; screening assay; immuno-
atic; immunostimulant; cancer; ovarian cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        \vdash
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity 100.
21; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FRNSSIKSYFSDCQVSTFRSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FRNSSIKSYFSDCQVSTFRSV 38
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chittenden T,
          Ebner R,
                                                                                                                                                                                                                                                                                                                                                                                      (first
                                                                                                                                                                                                                                                                                                                                                                                        entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         epitope; non-shed extracellular portion;
Muc1; Muc16; cytostatic; gene therapy; malignancy;
            Strovel
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Goldmakher V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0
            Ä
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 107; DB 8;
Pred. No. 1.7e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chun P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         as breast
                                                                                                                                                                                                                                                                                                          immuno-conjugate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         useful for diagnosing,
breast or ovarian cancer.
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Length 108; Indels

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Best Local S
Matches 21
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                                                                                                                                                                                17-JUL-2000; 2000US-00617747.

10-AUG-2000; 2000US-00636801.

20-SEP-2000; 2000US-00667857.

04-APR-2001; 201US-00827271.

18-JUN-2001; 2001US-008844411.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Identifying an agent that modulates the activity of any of three specific cancer-related genes, potentially useful in treating (ovarian) cancer, comprises detecting a difference in expression of the gene in the presence of the agent.
Example 13; Page 361-362; 408pp; English
                                        Polypeptides comprising an immunogenic portion of an ovarian carcinoma protein or its variants, useful for stimulating an immune response in
                                                                                                                                                                                                                                                                     17-JUL-2001;
                                                                                                                                                                                                                                                                                               24-JAN-2002.
                                                                                                                                                                                                                                                                                                                          WO200206317-A2
                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                                                                                              Human;
                                                                                                                                                                                                                                                                                                                                                                                                          Predicted extracellular domain of 0772P.
                                                                                                                                                                                                                                                                                                                                                                                                                                       02-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABP30979;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ABP30979 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 11; SEQ ID NO 4; 57pp;
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                                                                                                                                                        (CORI-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             2003-748320/70.
DB; ADM30755.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    28
                                                                                                                                                                                                                                                                                                                                                                              immunostimulant; cytostatic; cancer; ovarian carcinoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21;
                                                                                                             JL, King GE, vedvick TS,
                        or its variants, useful for and treating ovarian cancer.
                                                                                                                                                        CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FRNSSIKSYFSDCQVSTFRSV 48
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FRNSSIKSYFSDCOVSTFRSV 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
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                                                                                                                                                                                                                                                                    2001WO-US022635
                                                                                                                                                                                                                                                                                                                                                                                                                                      (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               protein; 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    100.0%;
                                                                                                             Algate
Carter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 107; DB 7; I
Pred. No. 2.9e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            English
                                                                                                             D, PA
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                                                                                                             Fling SP, Ret
                                                                                                            Retter MW,
Lbone E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 174;
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                                                                                                                            Fanger
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RESULT 6
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       The invention relates to an isolated 0772P polypeptide, which has the structure fully defined in the specification. The composition containing the polypeptides, polymucleotides, fusion porteins, antibodies, T-cells or antigen presenting cells are useful for stimulating an immune response and treating ovarian cancer. Detecting the presence of the polymucleotides and polypeptides is useful for diagnosing cancer. Ovarian carcinoma cDNAs and protein cDNAs were identified using microarray
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This invention relates to polypeptides comprising an immunogenic portion of an ovarian carcinoma protein which acts as an immunostimulant and is cytostatic. The polypeptides, polynucleotides, antibodies, fusion proteins, T cell populations and antigen presenting cells that express the polypeptides are useful for stimulating an immune response in a patient and treating ovarian cancer. This sequence represents protein
                                                                                                     Disclosure; Page 28; 371pp; English.
                                                                                                                                      therapy,
                                                                                                                                                  New isolated
                                                                                                                                                                           WPI; 2003-532352/50
                                                                                                                                                                                                 Reed
                                                                                                                                                                                                               Mitcham
                                                                                                                                                                                                                                                                                                                                                                              18-JUN-2001; 2001US-00884441
                                                                                                                                                                                                                                                                                                                                                                                                    17-JUL-2001; 2001US-00907969
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human; gene therapy; ovarian cancer; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADA08642;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADA08642 standard;
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                                                                                                                                                                                                                                                                                                                                          (KING/)
                                                                                                                                                                                                                                                                                   (REED/
                                                                                                                                                                                                                                                                                                         (RETT/)
                                                                                                                                                                                                                                                                                                                    (FLIN/)
                                                                                                                                                                                                                                                                                                                                                        (MITC/)
                                                                                                                                                                                                                                    ALBO/)
                                                                                                                                                                                                                                                           CART/)
                                                                                                                                                                                                                                                                        VEDV/
                                                                                                                                                                                                                                                                                              FANG/
                                                                                                                                                                                                                                                                                                                                ALGA/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Local
                                                                                                                                                                                                 SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          0772P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     21;
                                                                                                                                                                                                                                KING G E.
ALGATE P A.
FLING S P.
RETTER M W.
FANGER G R.
FANGER G R.
VEDVICK T S.
CARTER D.
HILL P.
ALBONE E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               μ.
                                                                                                                                                                                                JL, King
, Vedvick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
                                                                                                                                                                                                                                                                                                                                                       MITCHAM J L.
                                                                                                                                      ated 0772P polypeptides and polynucleotides, use particularly for treating or diagnosing cancer,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FRNSSIKSYFSDCQVSTFRSV 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FRNSSIKSYFSDCQVSTFRSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       partial protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
                                                                                                                                                                                                TS,
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                                                                                                                                                                                                 Algate
Carter
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                                                                                                                                                                                                D, PA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 107; DB 5
Pred. No. 3e-09;
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                                                                                                                                                                                                Retter MW,
bone E;
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                                                                                                                                                  useful in
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                                                                                                                                                                                                            Fanger GR;
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                                                                                                                                         n gene
ovarian
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technology.

present sequence represents a human

ovarian

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cc encode. The nucleic acids (I) may be used for preventing, diagnosing and cutreating diseases related to their aberrant expression i.e. breast cancers. For example, (I) and (II) may be used to treat disorders comers. For example, (I) and (II) may be used to treat disorders come a pattent's genome that affect the activity of (II) by expressing compactive proteins or to supplement the patients own production of (II). Cl Additionally, (I) may be used to produce (II), by inserting (I) into a complementary sequences may also be used as DNA probes in diagnostic complementary sequences may also be used as DNA probes in diagnostic complementary sequences may also be used as antigens in the production of complementary. The host cell may also be used as antigens in the production of compression and therefore which patients may be in need of restorative contents. The host cell may also be used as antigens in the production of contibodies against (II) and in assays to identify modulators of (II)'s expression and activity. The anti-(II) antibodies, agonists and continued contents and activity and an activity and an activity and an activity and activity and an activity and activity
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Best Local
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10-AUG-2000;
20-SEP-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           gene therapy; protein therapy; vaccine; antibody inhibition;
breast cancer; restorative therapy; diagnostic agent; immunoassay;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                17-JUL-2002;
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                                                                                                                                                                                                                                                                                                                                                       Example 13; SEQ ID NO 489; 399pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                   treatment
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bangur CS,
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17-JUL-2001;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (CORI-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               87
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORIXA CORP.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     178
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                                                                                                                                                                                                                                                                                                                                                                                               nucleic acids useful for of breast cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%;
milarity 100.0%;
Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ; 2000US-00617747.
; 2000US-00636801.
; 2000US-00667857.
; 2001US-00827271.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2001US-00884441.
2001US-00907969.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  2002US-00198053
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99US-00338933.
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Pred. No. 3e-09;
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                                                                                                                                                                                                                                                                                                                                                                                                                 the prevention, diagnosis and
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FRNSSIKSYFSDCQVSTFRSV

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RESULT 8
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Best Local S
Matches 21
 Query Match
Best Local Similarity
Matches 21; Conserv
                                                                                 This invention relates to polypeptides comprising an immunogenic portion of an ovarian carcinoma protein which acts as an immunostimulant and is cytostatic. The polypeptides, polynucleotides, antibodies, fusion proteins, T cell populations and antigen presenting cells that express the polypeptides are useful for stimulating an immune response in a patient and treating ovarian cancer. This sequence represents protein
                                                                                                                                                                                                                                                                        Mitcham (
Reed SG,
                                                                                                                                                                                                                                                                                                                                 17-JUL-2000; 2000US-00617747.
10-AUG-2000; 2000US-00636801.
20-SEP-2000; 2000US-00667857.
04-APR-2001; 2001US-00827271.
18-JUN-2001; 2001US-00884441.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       diagnostic agents for detecting the presence of (II) in samples (e.g. immunoassay). This sequence represents a secreted ovarian carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ABP30978 standard; protein; 233
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           antigen.
                                                Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ABP30978;
                                                                                                                                                                       Example 13; Page 361; 408pp; English.
                                                                                                                                                                                                           Polypeptides comprising an immunogenic portion of an ovarian carcinoma protein or its variants, useful for stimulating an immune response in
                                                                                                                                                                                                                                                 WPI; 2002-164781/21.
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                                                                                                                                                                                                                                                                                                                                                                                                                                    24-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Human; immunostimulant; cytostatic; cancer; ovarian
                                                                          related
                                                                                                                                                                                                 patient and treating ovarian cancer.
                                                                                                                                                                                                                                                                                                            (CORI-) CORIXA CORP.
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                                                                          to the invention
                                                                                                                                                                                                                                                                       JL, King GE,
, Vedvick TS,
                                                 233 AA;
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100.0%;
llarity 100.0%;
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Carter
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 Score 107; DB 5;
Pred. No. 4.1e-09;
; Mismatches 0;
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Pred. No. 3
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Hill P,
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, Albone E;
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RESULT 10
ADF08984
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                                                                                                       Best Local Similarity
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Reed SG,
                                                                                                                                                        The invention relates to an isolated 0772P polypeptide, which has the structure fully defined in the specification. The composition containing the polypeptides, polynucleotides, fusion proteins, antibodies, T-cells or antigen presenting cells are useful for stimulating an immune response and treating ovarian cancer. Detecting the presence of the polynucleotides and polypeptides is useful for diagnosing cancer. Ovarian carcinoma cDNAs and protein cDNAs were identified using microarray
                                                                                                                                                                                                                                         New isolated 0772P polypeptides and polynucleotides, useful in gene therapy, particularly for treating or diagnosing cancer, e.g. ovarian
12-FEB-2004
               ADF08984;
                             ADF08984 standard;
                                                                                                                             Sequence 233 AA;
                                                                                                                                                                                                                    Example 13; Page 28; 371pp; English.
                                                                                                                                                                                                                                    cancer
                                                                                                                                                                                                                                                                 WPI; 2003-532352/50
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       human; gene therapy; ovarian cancer; cancer.
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                                                                                                                                                  technology. The present sequence represents a human ovarian carcinoma
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(ALGA/)
(FLIN/)
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PANGER G R.
PEDVICK T S.
CARTER D.
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ALBONE E.
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, Vedvick
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ALGATE P A.
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                                                                                                                                                                                                                                                                                                                                                         FLING S P.
                                                                           FRNSSIKSYFSDCQVSTFRSV 21
                                                                 FRNSSIKSYFSDCOVSTFRSV 107
                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (first entry)
(first entry)
                                                                                                                                                                                                                                                                               TS,
                             peptide; 233
                                                                                                      100.0%;
                                                                                                                                                                                                                                                                               Algate
Carter
                                                                                               <u>0</u>
                                                                                                     Score 107; DB 7;
Pred. No. 4.1e-09;
                                                                                                                                                                                                                                                                               D,
                                                                                               Mismatches
                             ₿
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                                                                                                                                                                                                                                                                               Fling SP, Reti
Hill P, Albone
                                                                                                                                                                                                                                                                               Retter lbone E;
                                                                                                            Length 233;
                                                                                               Indels
                                                                                                                                                                                                                                                                                       ₹
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                                                                                                                                                                                                                                                                                       Fanger GR;
                                                                                               ٥,
                                                                                               Gaps
                                                                                               0
                     RESULT 11
ABU54859
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The invention describes nucleic acids (I) and the polypeptides (II) they CC encode. The nucleic acids (I) may be used for preventing, diagnosing and CC treating diseases related to their aberrant expression i.e. breast CC cancers. For example, (I) and (II) may be used to treat discorders CC cancers. For example, (I) and (II) may be used to treat discorders CC in a patient's genome that affect the activity of (II) by expressing CC inactive proteins or to supplement the patients own production of (II). CC Additionally, (I) may be used to produce (II), by inserting (I) into a CC complementary sequences may also be used as DNA probes in diagnostic CC assays to detect and quantitate the presence of similar nucleic acids in CC samples, and therefore which patients may be in need of restorative CC antibodies against (II) and in assays to identify modulators of (II)'s CC entrieon and activity. The anti-(II) antibodies, agonists and carcivity and as compositic agents for detecting the presence of (II) in samples (e.g. by immunoassay). This sequence represents a secreted ovarian carcinoma
                                                                                                 Query Match
Best Local S
Matches 21
                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Oncogenic nucleic acids useful treatment of breast cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              gene therapy; protein therapy; vaccine; antibody inhibition; breast cancer; restorative therapy; diagnostic agent; immuno secreted ovarian carcinoma antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 13; SEQ ID NO 488; 399pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-897152/82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bangur CS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                04-APR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              20-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-JUL-2000;
10-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        23-JUN-1999;
24-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        17-JUL-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US2003124140-A1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Secreted ovarian carcinoma antigen seqid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           18-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (CORI-) CORIXA CORP.
87
                                                                                                 l Similarity
21; Conserv
                                                                                                                                                                                                            233
                           FRNSSIKSYFSDCQVSTFRSV 21
FRNSSIKSYFSDCQVSTFRSV 107
                                                                                            100.0%; Score 107; DB 7; ilarity 100.0%; Pred. No. 4.1e-09; Conservative 0; Mismatches 0:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Retter MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          98US-00216003.
99US-00338933.
99US-00404879.
2000US-00617747.
2000US-00636801.
2000US-00667857.
2001US-00827271.
2001US-00884441.
2001US-00907969.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fanger
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                the prevention,
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                                                                                                                                                     Length
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                                                                                                 Gaps
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ABU54859;

ABU54859 standard; protein; 284

12-MAR-2003

(first entry)

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                                                                                                                                               CC CA125 repeat domains, nucleic acids (including variants, homologues and CC degenerate versions) encoding CA125 proteins or repeat units, a vector CC comprising the nucleic acid, a cultured cell comprising the vector, a CC method of expressing CA125 antigen in a cell, the amino acid sequences of CC the CA125 repeat units (or their variants, fragments or sequences 50% CC identical to them), a purified antibody that selectively binds to an CC epitope in the receptor-binding domain of CA125 antigen (comprising recombinant CA125 having at least one repeat unit of the CA125 repeat CC disease or CA125 having at least one repeat unit of the CA125 repeat CC disease or disease recurrence associated with elevated CA125 antigen CC levels (comprising recombinant CA125 repeat domains including epitope binding sites), a therapeutic vaccine to treat CC disease or disease recurrence associated with elevated CA125 antigen CC levels (comprising recombinant CA125 repeat domains including epitope binding sites) and an antisense oligonucleotide that inhibits the CC expression of CA125. The CA125 molecule, particularly the multiple repeat domains are useful as a gold standard for detecting and monitoring the CC domains are useful as a gold standard for detecting and monitoring the CC retains patients with ovarian cancer and other carcinomas where CA125 is expressed. The molecules are also useful for developing a vaccine CC against cancer. The present sequence is a CA125 repeat protein
                                                                             Query Match
Best Local S
Matches 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-APR-2001;
19-JUN-2001;
27-SEP-2001;
21-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New CA125 molecules, useful as a gold standard for detecting and monitoring the presence of CA125 antigen which can be used for diagnosing, monitoring or treating patients with cancer or for developing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Human; CA125; protein repeat; chromosome 19q 13.2; amino terminal domain; amino terminal extension; carboxy terminal domain; vaccine; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    O'brien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                             Sequence 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 1; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 12-APR-2002; 2002WO-US011734.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WO200283866-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (UYAR-)
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               138
                                                                               Similarity
21; Conser
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  'n
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  against cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   UNIV ARKANSAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     cancer;
                                            FRNSSIKSYFSDCQVSTFRSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Beard J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ; 2001US-0284175P.
; 2001US-0299380P.
; 2001US-00965738.
; 2001US-0345180P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     carboxy terminal domain
                                                                             100.0%;
llarity 100.0%;
Conservative 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               9b; 694pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Underwood
                                                                             Score 107; DB 6;
Pred. No. 5.1e-09;
; Mismatches 0;
                                            21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ŗ
                                                                                                            Length 284;
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                                                                            Gaps
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RESULT 13
ADA08747
ID ADA08
XX ADA08
AC ADA08
XX O6-NC
DT 06-NC
XX
XX Humar
XX humar
XX Homo
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ABP31025
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                                                                                                                                                                                                                                 Matches
                                                                                                                                                                                                                                                         Query Match
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Reed SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-JUL-2000;
10-AUG-2000;
20-SEP-2000;
04-APR-2001;
                                                                                                                                                                                                                                                                                                                 This invention relates to polypeptides comprising an immunogenic portion of an ovarian carcinoma protein which acts as an immunostimulant and is cytostatic. The polypeptides, polynucleotides, antibodies, fusion proteins, T cell populations and antigen presenting cells that express the polypeptides are useful for stimulating an immune response in a patient and treating ovarian cancer. This sequence represents protein
                                                                                                                                                                                                                                                                               Sequence 318 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                       Polypeptides comprising an immunogenic portion of an ovarian carcinoma protein or its variants, useful for stimulating an immune response in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    02-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ABP31025;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ABP31025 standard; protein; 318
                        human; gene therapy; ovarian cancer; cancer
                                                                        06-NOV-2003
                                                                                                ADA08747;
                                                                                                                       ADA08747 standard;
                                                                                                                                                                                                                                                                                                                                                                                                      Claim 3; Page 399-400; 408pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                              patient
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               18-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       17-JUL-2001; 2001WO-US022635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              24-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Homo sapiens.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human; immunostimulant; cytostatic; cancer; ovarian carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                              Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              2002-164781/21.
                                                                                                                                                                                   172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            acid sequence
                                                 0772P
                                                                                                                                                                                                        1 FRNSSIKSYFSDCOVSTFRSV 21
                                                                                                                                                                                                                                 21;
                                                                                                                                                                                                                                                                                                        ť
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JL, King GE,
, Vedvick TS,
                                                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                           and treating ovarian cancer.
                                                                                                                                                                                                                                                                                                        the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; 2000US-00617747.
; 2000US-00636801.
; 2000US-00667857.
; 2001US-00827271.
; 2001US-00884441.
                                                constant region consensus sequence
                                                                                                                                                                                                                                 Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first
                                                                        (first entry)
                                                                                                                       protein; 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            of the
                                                                                                                                                                                                                                            100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Algate PA,
Carter D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ų
                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                              Score 107; DB 5;
Pred. No. 5.8e-09;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            constant region of 0772P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Fling SP, Retter MW,
Hill P, Albone E;
                                                                                                                                                                                                                                                       Length 318;
                                                                                                                                                                                                                                 0;
                                                                                                                                                                                                                                 Gaps
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ADF09090
XX
AC ADF0
XX
AC ADF0
DT 12-F
XX
Secr
XX
Gene
KW Gene
KW Berca
XX
Secr
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US20
PD US20
PD 03-J
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mitcham ,
Reed SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to an isolated O772P polypeptide, which has the structure fully defined in the specification. The composition containing the polypeptides, polynucleotides, fusion proteins, antibodies, T-cells or antigen presenting cells are useful for stimulating an immune response and treating ovarian cancer. Detecting the presence of the polynucleotides and polypeptides is useful for diagnosing cancer. Ovarian carcinoma cDNAs and protein cDNAs were identified using microarray technology. The present sequence represents a human ovarian carcinoma
                                                                                                                                                                                             gene tl
                                                                     US2003124140-A1
                                                                                                                     Homo
                                                                                                                                                                    secreted
                                                                                                                                                                                                                                                             Secreted
                                                                                                                                                                                                                                                                                                          12-FEB-2004
                                                                                                                                                                                                                                                                                                                                                            ADF09090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              therapy,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                New isolated 0772P polypeptides and polynucleotides, useful in gene therapy, particularly for treating or diagnosing cancer, e.g. ovariants.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17-JUL-2001; 2001US-00907969.
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                                                                                                                                                                                                                                                                                                                                                                                                         ADF09090 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (KING/)
(ALGA/)
(FLIN/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       18-JUN-2001; 2001US-00884441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (ALBO/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (VEDV/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (MITC/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CART/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              REED/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              RETT/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FANG/)
                                                                                                                                                                                   therapy; protein therapy; vaccine; antibody inhibition; st cancer; restorative therapy; diagnostic agent; immuno
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           172
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ب
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          21;
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FANGER G R.
REED S G.
VEDVICK T S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CARTER D. HILL P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     JL, King GE,
, Vedvick TS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ALGATE P A. FLING S P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ALBONE E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MITCHAM J L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KING G
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         318
                                                                                                                                                                    ovarian
                                                                                                                                                                                                                                                           ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FRNSSIKSYFSDCQVSTFRSV 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         FRNSSIKSYFSDCQVSTFRSV 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQ ID NO 594; 371pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         A
                                                                                                                                                                                                                                                                                                          (first
                                                                                                                                                                                                                                                           carcinoma
                                                                                                                                                                    carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                      protein;
                                                                                                                                                                                                                                                                                                          entry)
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Carter D,
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Hill P, Albone
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bone E;
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RESULT 15
AAB12631
ID AAB12
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                                                                                                                                                                                                                                                                                                                                                        S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention describes nucleic acids (I) and the polypeptides (II) they CC encode. The nucleic acids (I) may be used for preventing, diagnosing and CC treating diseases related to their aberrant expression i.e. breast CC cancers. For example, (I) and (II) may be used to treat disorders CC associated with decreased expression by rectifying mutations or deletions CC in a patient's genome that affect the activity of (II) by expressing CC inactive proteins or to supplement the patients own production of (II). CC Additionally, (I) may be used to produce (II), by inserting (I) into a CC host cell and culturing the cell to express the protein (II). (I) And its CC complementary sequences may also be used as DNA probes in diagnostic CC assays to detect and quantitate the presence of similar nucleic acids in CC samples, and therefore which patients may be in need of restorative complementary sequences may also be used as antigens in the production of CC antibodies against (II) and in assays to identify modulators of (II)'s captession and activity. The anti-(II) antibodies, agonists and carcinoma compositic agents for detecting the presence of (II) in samples (e.g. by immunoassay). This sequence represents a secreted ovarian carcinoma
                                                                                                                                                                                                                                                                                                                                                                                             Matches
                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
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17-DEC-1998;
23-JUN-1999;
24-SEP-1999;
               Human; ovarian cancer antigen; proliferative disorder; cancer; tumour; respiratory system disorder; asthma; haematopoietic disorder; skin aging; immune system disorder; skin disorder; autoimmune disease; allergy; rheumatoid arthritis; inflammation; neurological disorder; septic shock; Alzheimer's disease; Parkinson's disease; diabetes; angiogenic disorder; atherosclerosis; cardiovascular disorder; gastrointestinal disorder;
                                                                                                                                    Human
                                                                                                                                                                      03-JAN-2002
                                                                                                                                                                                                        AAE12631;
                                                                                                                                                                                                                                        AAE12631
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 16; SEQ ID NO 594; 399pp;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             N-PSDB;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    04-APR-2001;
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                                                                                                                                                                                                                                                                                                                           172
                                                                                                                                    gene 1 encoded secreted protein fragment,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                318
                                                                                                                                                                                                                                        standard; protein;
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2000US-00636801.
2000US-00667857.
2000US-00827271.
2001US-00884441.
2001US-00907969.
                                                                                                                                                                                                                                                                                                                                                                                         100.0%; ilarity 100.0%; Conservative
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98US-00216003.
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Pred. No. 5.8e-09;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             for the prevention, diagnosis
                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
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                                                                                                                                    SEQ ID
                                                                                                                                                                                                                                                                                                                                                                                                                             Length 318;
                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                      NO:
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proliferation; transplantation;

chemotaxis;

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Search completed: October 27, 2005, 18:44:24 Job time: 72.6698 secs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CC DARS are used in the prevention, diagnosis and treatment of diseases CC associated with their inappropriate expression. These disorders include proliferative disorders, cancer, tumours, respiratory system disorders, casthma, haematopoietic disorders, diseases of the immune system, AIDS, CC inflammation, allergies, neurological disorders (e.g., Alzheimer's CC inflammation, allergies, neurological disorders (e.g., Alzheimer's CC disease, Parkinson's diseases), septic shock, diabetes, atherosclerosis, CC cardiovascular disorders, angiogenic disorders, kidney disorders, CC gastrointestinal disorders, angiogenic disorders, kidney disorders, CC gastrointestinal disorders, endocrine disorders and infections. The CC proteins can also be used to aid wound healing and epithelial cell CC proliferation, to prevent skin aging due to sunburn, to maintain organs CC before transplantation, to identify their cognate ligands or binding CC symptoms associated with the disorders mentioned above and in diagnostic communoassays e.g., enzyme linked immunosorbent assay (ELISA). The DNA of the invention is used in gene therapy. The present sequence represents a cCC human ovarian cancer antigenic fragment of the invention
                                                                                                                                                                                                                                                                                    Query Match
Best Local S
Matches 21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAD20618-AAD20624 represent cDNAs corresponding to 7 human ovarian and ovarian cancer associated protein (collectively known as ovarian cancer antigens) genes, and AAE12623-AAE12629 represent the proteins they encode. AAE12630-AAE12638 represent human ovarian cancer antigenic fragments or variants. Ovarian cancer antigens and their corresponding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Birse CE,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Disclosure; Page 9; 427pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-639119/73.
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23-AUG-2000; 2000US-0227009P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-MAR-2001; 2001WO-US008585
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                                                                                                                                               292
                                                                                                                                                                                                                                                                             ch 100.0%; 9
1 Similarity 100.0%; 1
21; Conservative 0;
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                                                                                                                                            FRNSSIKSYFSDCQVSTFRSV 312
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Pred. No. 6.8e-09;
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US-10-612-090-16 107

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October 27,

Copyright

Scoring table:

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513545 seqs,

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length: 0 length: 2000000000

Total number of

Database

27, Appl 27, Appl 6306, Ap 18328, A 5155, Ap 7, Appli

7, Appli 5079, Ap

Appli

194, App 194, App 194, App 194, Appl 84, Appl 179, App 179, App 179, App 179, Appli 471, App

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Post-processing: Minimum Match 0%
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Listing first 45 summaries
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                is the number of results predicted by chance to have a ater than or equal to the score of the result being printed, rived by analysis of the total score distribution.
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1: /cgn2_6/ptodata/1/iaa/5A_COMB.pep:*

2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/6B_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

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    US-09-404-879A-390
US-09-467-857-390
US-09-667-857-389
US-09-667-857-312
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US-09-107-433-3451
US-09-107-433-3451
US-09-107-279-1356
US-09-114-01C-5234
US-09-114-01C-5234
US-09-114-102-16
US-09-442-102-16
US-09-442-102-16
US-09-442-102-16
US-09-442-102-16
US-09-442-103-18
US-09-467-879A-388
US-09-467-857-388
US-09-467-857-388
US-09-107-532A-3885
US-09-248-796A-18337
US-09-248-796A-18337
US-09-270-767-37567
US-09-270-767-37567
US-09-270-767-3757
US-09-50-412-357
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ; Search time 18.2651 Seconds (without alignments) 85.826 Million cell updates/sec
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    sequence
    390, App
389, App
389, App
312, App
313, App
314, Ap
2, App
315, Ap
2, App
11, Ap
16, App
16, App
16, App
116, App
117, App
117, App
118, App
119, 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
APPLICANT: Algate, Paul A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C2
CURRENT APPLICATION NUMBER: US/09/404,879A
CURRENT FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 393
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 390
LENGTH: 438
TYPE: PRT
ORGANISM: Homo sapiens
US-09-404-879A-390
GENERAL INFORMATION:

APPLICANT: King, Gordon E.

APPLICANT: King, Gordon E.

APPLICANT: King, Gordon E.

APPLICANT: Fling, Steven P.

APPLICANT: Fling, Steven P.

APPLICANT: Retter, Marc W.

APPLICANT: Fanger, Gary Richard

APPLICANT: Reed, Steven G.

APPLICANT: Vedvick, Thomas S.

APPLICANT: Carter, Darrick

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR TH.

TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER

FILE REFERENCE: 210121.462C5

CURRENT APPLICATION MUMBER: US/09/667,857

CURRENT APPLICATION MUMBER: US/09/667,857

NUMBER OF SEQ ID NOS: 455
                                                                                                                                                                                                                                                                                                                                                US-09-667-857-390
; Sequence 390, Application US/09667857
; Patent No. 6699664
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US-09-404-879A-390
; Sequence 390, Application
; Patent No. 6468546
; GENERAL INFORMATION:
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US-09-620-412C-194
US-09-538-419-1194
US-09-538-092-84
US-09-556-877-179
US-09-520-412C-179
US-09-520-412C-179
US-09-538-092-477
US-09-538-092-477
US-09-538-092-477
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US-09-543-681A-6306
US-09-543-681A-6306
US-09-543-681A-5155
US-09-543-681A-75155
US-09-543-681A-75155
US-09-543-681A-75155
US-09-134-001C-5079
US-09-134-001C-5079
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GENERAL INFORMATION:
APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
APPLICANT: Filing, Steven P.
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary Richard
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US-09-667-857-389
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LENGTH: 833
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-404-879A-389
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-667-857-390
ORGANISM: Homo sapiens
US-09-667-857-389
                                           SEQ ID NO 389
LENGTH: 833
TYPE: PRT
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Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 389, Application US/09667857 Patent No. 6699664
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon B.
APPLICANT: Algate, Paul A.
APPLICANT: Algate, Paul A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER FILE REFERENCE: 210121,462C2
CURRENT APPLICATION NUMBER: US/09/404,879A
CURRENT FILING DATE: 1999-09-24
NUMBER OF SEQ 1D NOS: 393
SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                            APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary Richard
APPLICANT: Reed, Steven G.
APPLICANT: Vedvick, Thomas S.
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C5
                                                                                                         CURRENT APPLICATION NUMBER: US/09/667,857
CURRENT FILING DATE: 2000-09-20
NUMBER OF SEQ ID NOS: 455
SOFTWARE: FASTSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Y Match 100.0%; Score 107; DB 4; Local Similarity 100.0%; Pred. No. 1.5e-09; O: Mismatches 0;
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US-09-404-879A-312
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                                                  RESULT 7
US-09-667-857-312
                                                                                                                                                                                                                                                                        ; ORGANISM: Homo sapien US-09-338-933-312
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                                                                                                                                                                                                                                                                                                                                        CURRENT APPLICATION NUMBER: US/09/338,933
CURRENT FILING DATE: 1999-06-23
NUMBER OF SEQ ID NOS: 312
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 312
               Sequence 312, Application US/09667857 Patent No. 6699664
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GENERAL INFORMATION:
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Best Local Similarity
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GENERAL INFORMATION:
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Best Local
                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Patent No. 648893
                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: Mitcham, Jennifer Lynn
APPLICANT: King, Gordon E.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THERAPY
TITLE OF INVENTION: OVARIAN CANCER
FILE REFERENCE: 210121.462C1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: Algate, Paul A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C2
CURRENT APPLICATION NUMBER: US/09/404,879A
CURRENT FILING DATE: 1999-09-24
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SOFTWARE: FastSEQ for Windows Version 3.0
                                                                                                                                                                                                                                                                                                              LENGTH: 914
TYPE: PRT
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Local Similarity 100.0%; Pred. No. 1.7e-09;
les 21; Conservative 0; Mismatches 0;
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6468546
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ilarity 100.0%;
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Gaps

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APPLICANT: Algate, Paul A.
APPLICANT: Filing, Steven P.
APPLICANT: Fetter, Marc W.
APPLICANT: Facter, Marc W.
APPLICANT: Fanger, Gary Richard
APPLICANT: Fanger, Gary Richard
APPLICANT: Carter, Darrick
APPLICANT: Certer, Darrick
ITILE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
ITILE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C5
CURRENT APPLICATION NUMBER: US/09/667,857
CURRENT FILING DATE: 2000-09-20
NUMBER OF SEQ ID NOS: 455
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 312
LENGTH: 914
TYDE: PRT
ORGANISM: Homo sapien
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US-09-107-433-3451
US-09-107-433-3451
; Sequence 3451, Application US/09107433
; Patent No. 6800744
; GENERAL INFORMATION:
APPLICANT: Lynn A Doucette-Stamm and David Bush
APPLICANT: Lynn A DOUCETT ACID AND AMINO ACID
SEQUENCES RELATING TO STREPTOCOCCCUS PNEUMONIAE
THERAPEUTICS
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                                                         INFORMATION FOR SEQ ID NO: 3451: SEQUENCE CHARACTERISTICS:
                                                                                          PRIOR APPLICATION DATA:

APPLICATION UNMBER: 60/085131

FILING DATE: May 12, 1998

APPLICATION NUMBER: 60/05153

FILING DATE: MAY 12, 1997

ATTORNEY/AGENT INFORMATION:

NAME: Ariniello, Pamela Deneke
REGISTRATION NUMBER: 40,489

REFERENCE/DOCKET NUMBER: GTC-011

TELEPHONE: (781)893-5007

TELEPHONE: (781)893-5077

TELEPHONE: (781)893-8277
                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/107,433
FILING DATE: 30-Jun-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: CD/ROM ISO9660
COMPUTER: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            768 FRNSSIKSYFSDCQVSTFRSV 788
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                                                                                                                                                                                                                                                                                                                                                                                               SOFTWARE: <Unknown>
                                                                                                                                                                                                                                                                                                                                                                                                                 OPERATING SYSTEM: <Unknown>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CITY: Waltham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY: USA
                  ENGTH: 144 amino acids
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Algate, Paul A.
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Pred. No. 1.7e-09;
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                                                   APPLICANT: Pedersen, Anette A
APPLICANT: Brunstedt, Janne
APPLICANT: Mikkelsen, Jorn
TITLE OF INVENTION: Process
FILE REFERENCE: PO05380WO CTH
CURRENT APPLICATION NUMBER: US/09/787,069
CURRENT FILING DATE: 2001-07-16
PRIOR APPLICATION NUMBER: GB 9820195.7
PRIOR FILING DATE: 1998-09-16
NUMBER OF SEQ ID NOS: 21
SOFTWARE: PATENTIN Ver. 2.1
SEQ ID NO 2
LENGTH: 366
; TYPE: PRT; ORGANISM: Erwinia chrysanthemi US-09-787-069-2
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US-09-787-069-2
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US-09-425-383-2
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SEQ ID NO 2
LENGTH: 909
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Matches 9; Conserv
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                                                                                                                                                                                                                                                                                                                                                        GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                        Patent No. 6627429
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                                                                                                                                                                                                                                                                                          APPLICANT: Danisco A/S
APPLICANT: Christenser
APPLICANT: Pedersen, I
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Mahajan, Pramod B. APPLICANT: Shi, Jinrui
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HYPOTHETICAL: YES
ORIGINAL SOURCE:
ORGANISM: Streptococcus pneumoniae
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LOCATION: (B) LOCATION 1...144
SEQUENCE DESCRIPTION: SEQ ID NO: 3451:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             603 FRKATVKSFVLDCEIVAY 620
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     55
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Similarity 33.3%;
6; Conservative
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                                                                                                                                                                                                                                                                                                                Christensen,
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56.2%;
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Pred. No. 32;
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Pred. No. 3.
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Gaps

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Query Match
Best Local Similarity
Matches 6; Conserva
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US-09-710-279-1356
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                                                                                                                                 ; ORGANISM: Staphylococcus epidermidis US-09-134-001C-5234
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; OTHER INFORMATION: amino acid sequence
US-09-710-279-1356
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Patent No. 6703492
GENERAL INFORMATION:
                                                                                                                                                                                                 PRIOR APPLICATION NUMBER: US 60/055,779
PRIOR FILING DATE: 1997-08-14
NUMBER OF SEQ ID NOS: 5674
SEQ ID NO 5234
                                                                                                                                                                                                                                                                                                                                                                                                          GENERAL INFORMATION:
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                                                                 Matches
                                                                                     Query Match
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                                                                                                                                                                                                                                                                 APPLICANT: Lynn Doucette-Stamm et al TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS FILE REFERENCE: GTC-007
CURRENT APPLICATION NUMBER: US/09/134,001C
CURRENT FILING DATE: 1998-08-13
PRIOR APPLICATION NUMBER: US 60/064,964
PRIOR FILING DATE: 1997-11-08
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Best Local Similarity
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TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
FILE REFERENCE: PU3480US
CURRENT APPLICATION NUMBER: US/09/710,279
CURRENT FILING DATE: 2000-11-09
PRIOR APPLICATION NUMBER: 60/164,258
PRIOR FILING DATE: 1999-11-09
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SOFTWARE: PatentIn Ver. 2.
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ORGANISM: Artificial Sequence
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                                                                                                                                                                                     ENGTH:
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                                                                               local Similarity
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149 SEVONYFKDKOIETYQ 164
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                            SSIKSYFSDCQVSTFR 19
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                                                                              Score 42;
Pred. No.
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Pred. No.
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SEQ ID NO 15403
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Best Local
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO CANDIDA ALBICANS
TITLE OF INVENTION: FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: 107196.132
CURRENT APPLICATION NUMBER: US/09/248,796A
CURRENT FILLING DATE: 1999-02-12
PRIOR APPLICATION NUMBER: US 60/074,725
PRIOR APPLICATION NUMBER: US 60/074,725
PRIOR APPLICATION NUMBER: US 60/096,409
PRIOR APPLICATION NUMBER: US 60/096,409
PRIOR APPLICATION NUMBER: US 60/096,409
PRIOR APPLICATION DATE: 1998-02-13
PRIOR APPLICATION DATE: 1998-02-13
TELEX: 66141 PENNIE INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GENERAL INFORMATION:
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FILING DATE:
CLASCOTT
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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
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                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER:
FILING DATE:
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TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                        TELECOMMUNICATION INFORMATION: TELEPHONE: (212) 790-9090
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NUMBER OF SEQUENCES: 1
CORRESPONDENCE ADDRESS:
                                                                                                                                                                   ATTORNEY/AGENT INFORMATION:
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                                                                                                              REGISTRATION NUMBER: 18,872
REFERENCE/DOCKET NUMBER: 6523-003
                                                                                                                             NAME: Misrock, S. Leslie
REGISTRATION NUMBER: 18,
                                                                                                                                                                                                                                                                                                                                COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS
                                                     TELEFAX:
                                                                                                                                                                                                                                             CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
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8; Conserv
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1155 Avenue of the Americas
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                                                        (212) 869-9741/8864
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Pred. No.
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; LENGTH: 561 amino acids
; TYPE: amino acid
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
US-09-442-100-16
Search completed: October 27, 2005, 17:34:33 Job time : 19.2651 secs
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APPLICATION NUMBER: US/08/939,106
FILING DATE: 26-No. 6559285-1997
CLASSIFICATION: «Unknown»
ATTORNEY/AGENT INFORMATION:
NAME: Misrock, S. Leslie
REGISTBATION NUMBER: 18,872
REFERENCE/DOCKET NUMBER: 6523-007-228
TELEPHONE: (212) 790-9090
TELEPAX: (212) 869-9741/8864
TELEPAX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 16:
SEQUENCE CHARACTERISTICS:
LENGTH: 561 amino acide
TYPE: amino acide
TYPE: amino acide
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US-08-939-106-16
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Sequence 16, Application US/08939106
Patent No. 6559285
GENERAL INFORMATION:
APPLICANT: Yale University
APPLICANT: Yale
                                                                                                                                                                                                                                                                                                                                                                              Query Match 39.3%; Score 42; DB 4; Length 561; Best Local Similarity 42.9%; Pred. No. 87; Matches 9; Conservative 3; Mismatches 9; Indels
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MOLECULE TYPE: protein
SEQUENCE DESCRIPTION: SEQ ID NO: 16:
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CORRESPONDENCE ADDRESS:
ADDRESSE: Pennie & Edmonds
STREET: 1155 Avenue of the Americas
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STATE: New York
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Minimum DB
Maximum DB
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No.
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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seq length: 2000000000
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1: /cgn2_6/ptodata/2/pubpaa/US07_PUBCOMB.pep:*

2: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*

3: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*

4: /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*

5: /cgn2_6/ptodata/2/pubpaa/US08_NEW_PUB.pep:*

6: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

7: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

8: /cgn2_6/ptodata/2/pubpaa/US09B_PUBCOMB.pep:*

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11: /cgn2_6/ptodata/2/pubpaa/US09B_PUBCOMB.pep:*

13: /cgn2_6/ptodata/2/pubpaa/US09B_PUBCOMB.pep:*

14: /cgn2_6/ptodata/2/pubpaa/US10A_PUBCOMB.pep:*

15: /cgn2_6/ptodata/2/pubpaa/US10A_PUBCOMB.pep:*

16: /cgn2_6/ptodata/2/pubpaa/US10A_PUBCOMB.pep:*

17: /cgn2_6/ptodata/2/pubpaa/US10A_PUBCOMB.pep:*

18: /cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

19: /cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

19: /cgn2_6/ptodata/2/pubpaa/US10B_PUBCOMB.pep:*

19: /cgn2_6/ptodata/2/pubpaa/US11A_PUBCOMB.pep:*

20: /cgn2_6/ptodata/2/pubpaa/US11A_PUBCOMB.pep:*

21: /cgn2_6/ptodata/2/pubpaa/US11A_PUBCOMB.pep:*

22: /cgn2_6/ptodata/2/pubpaa/US11A_PUB.pep:*

23: /cgn2_6/ptodata/2/pubpaa/US11A_PUB.pep:*

24: /cgn2_6/ptodata/2/pubpaa/US10B_PUB.pep:*

25: /cgn2_6/ptodata/2/pubpaa/US10B_PUB.pep:*
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Match
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130.638 Million cell updates/sec
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    15 US-10-612-090-16

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15 US-10-612-090-13

15 US-10-383-368-4

15 US-09-884-441-489

10 US-09-907-969-489

10 US-10-198-053-489

10 US-09-907-969-488

10 US-09-907-969-488
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Sequence 16, Appli
Sequence 2, Appli
Sequence 13, Appli
Sequence 4, Appli
Sequence 489, App
Sequence 489, App
Sequence 489, App
Sequence 488, App
Sequence 488, App
Sequence 488, App
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US-09-907-969-312	-09-884-441-4	US-09-884-441-312	-09-910-68	09-778-320-2	-10-860-790-38	198-053-	-09-827-271-38	-09-907-969-	09-884-441-3	-10-	-10-687-035-	-10-142-515-	-10-243-243A-	-10-333-900	-10-858-412-	-09-965-738-	-10-860-790-4	-860-790-	-10-333-900-	-10-198-053-	-10-198-053-	-09-827-271-	-09-907-969-48	-09-907-969-3	884-	09-884-441-390	-10-858-412-2	-10-333-900-2	-10-860-790-5	-10-198-053-	9-907-969-59	-09-965-738-30	US-10-860-790-488
e 312,	478, 2	312,	equence 206,	206, A	equence 389	389	389	e 389	389,	Sequence 2, Appli	e 1	4	e 4,	30,	Sequence 226, App	148	e 483	390	19,	483	390	e 390	483	e 390	483	390,	e 225,	e 27,	e 594,	e 594,	O	e 300,	Sequence 488, App

ALIGNMENTS

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RESULT 1
US-10-612-090-16
Sequence 16, Application US/10612090
Publication No. US20040057952A1
GENERAL INFORMATION:
APPLICANT: ImmunoGen, Inc.
TITLE OF INVENTION: ANTIBODIES TO NON-SHED MUC1 AND MUC16, AND USES THEREOF
FILE REFERENCE: A8340
CURRENT APPLICATION NUMBER: US/10/612,090
CURRENT APPLICATION NUMBER: US/05-07-03
PRIOR APPLICATION NUMBER: US/0393,094
PRIOR APPLICATION NUMBER: US/0393,094

PRIOR PRILING DATE: 2003-07-03

NUMBER OF SEQ ID NOS: 33
SOFTWARE: PatentIn version 3.2
SEQ ID NO 16
LENGTH: 21
TYPE: PAT
ORGANISM: Homo Sapiens
US-10-612-090-16

QUETY MATCh
Best Local Similarity 100.0%; Score 107; DB 15; Length 21;
Best Local Similarity 100.0%; Pred. No. 1.3e-09;
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Sequence 2, Application US/10612090
Publication No. US20040057952A1
GENERAL INFORMATION:
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APPLICANT: ImmunoGen, Inc.
TITLE OF INVENTION: ANTIBODIES TO NON-SHED MUC1 AN
FILE REFERENCE: A8340
CURRENT APPLICATION NUMBER: US/10/612,090
CURRENT FILING DATE: 2003-07-03
PRIOR APPLICATION UNBER: US 60/393,094
PRIOR PILING DATE: 2002-07-03
NUMBER OF SEQ ID NOS: 33
SOFTMARE: PATENTIN VERSION 3.2
SECTION OF SEQ ID NOS: 33
SOFTMARE: PATENTIN VERSION 3.2
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Sequence 13, Application US/10612090; Publication No. US20040057952A1
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; LOCATION: (1)...(1)
; OTHER INFORMATION: Glutathione S-transferase fusion site
US-10-612-090-13
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                                                                                                                                                                               Sequence 4, Application US/10383368
Publication No. US20040002091A1
GENERAL INFORMATION:
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PRIOR FILING DATE: 2002-07-03
NUMBER OF SEQ ID NOS: 33
SOFTWARE: PatentIn version 3.2
SEQ ID NO 2
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Best Local Similarity
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APPLICANT: Young, Paul E.
APPLICANT: Ebner, Reinhard
APPLICANT: Strovel, Jeffrey W.
TITLE OF INVENTION: Cancer-Linked Gene as Target
FILE REFERENCE: 689290-123
CURRENT APPLICATION NUMBER: US/10/383,368
CURRENT APPLICATION NUMBER: US/10/383,368
CURRENT FILING DATE: 2003-03-07
PRIOR APPLICATION NUMBER: US 60/362,527
PRIOR FILING DATE: 2002-03-07
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TITLE OF INVENTION: ANTIBODIES TO NON-SHED MUC1 AND MUC16, AND USES THEREOF
FILE REFERENCE: A8340
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ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          LENGTH: 108
TYPE: PRT
ORGANIAM: Artificial Sequence
FEATURE:
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Pred. No. 7.3e-09;
; Mismatches 0;
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APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
ITITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C7
CURRENT APPLICATION NUMBER: US/09/884,441
CURRENT FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 489
SOPTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 489
LENGTH: 178
TYPES.
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; ORGANISM: Homo sapiens
US-09-884-441-489
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                                               FILE REFERENCE: 210121.462C8
CURRENT APPLICATION NUMBER: US/09/907,969
CURRENT FILING DATE: 2001-07-17
NUMBER OF SEQ ID NOS: 596
SOFTWARE: FASESEQ for Windows Version 4.0
SEQ ID NO 489
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 489, Application US/09884441 Patent No. US20020119158A1 GENERAL INFORMATION:
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Best Local Similarity
Matches 21; Conserv
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 4
                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence 489, Application US/09907969 Publication No. US20030091580A1
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Best Local :
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                                                                                                                                                         APPLICANT: Albone, Earl
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
                                                                                                                                                                                                                                                                                                          APPLICANT:
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                                                                                                                                                                                                                                                                                                                         APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon B.
APPLICANT: Algate, Paul A.
APPLICANT: Fling, Steven P.
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TYPE: PRT
ORGANISM: Homo sapiens
                                   LENGTH: 178
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Fanger, Gary Richard
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Conservative 0
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Pred. No. 1.2e-08;
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Pred. No. 1.2e-08;
; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
APPLICANT: Bangur, Chaitanya S.
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
APPLICANT: Hill, Paul
                                                                                                                                                                                                                                        TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C11
CURRENT APPLICATION NUMBER: US/10/860,790
CURRENT FILING DATE: 2004-06-02
RUMBER OF SEQ ID NOS: 624
SOFTWARE: FBSESEQ for Windows Version 4.0
SEQ ID NO 489
LENGTH: 178
TYPE: DET
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CURRENT FILING DATE: 2002-07-17
NUMBER OF SEQ ID NOS: 624
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 489
LENGTH: 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 489, Application US/10860790 Publication No. US20050031634A1
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Publication No. US20030124140A1
                                                                                                                                Query Match
Best Local (
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APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
APPLICANT: Hill, Paul
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                                                                                                                                                                                                        TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TYPE: PRT
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                                                                                                                 21; Conservative
                                                                         FRNSSIKSYFSDCOVSTFRSV 21
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                                                                                                                                100.0%; Score 107; DB 17; 100.0%; Pred. No. 1.2e-08;
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APPLICANT: Albone, Earl
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C8
CURRENT APPLICATION NUMBER: US/09/907,969
CURRENT FILING DATE: 2001-07-17
NUMBER OF SEQ ID NOS: 596
SOPTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 488
LENGTH: 233
TYPE: PRT
ORGANISM: Homo sapiens
           RESULT 11
US-10-198-053-488
(S-10-198-053-488), Application US/10198053
; Sequence 488, Application US/10198053
; Publication No. US20030124140A1
; GENERAL INFORMATION:
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US-09-907-969-488
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Best Local S
Matches 21
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Patent No. US20020119158A1
GENERAL INFORMATION:
APPLICANT: Algate, Paul A.
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
TITLE OF INVENTION: DIACNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C7
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CURRENT FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 489
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 488
LENGTH: 233
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APPLICANT:
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APPLICANT:
APPLICANT: Bangur, Chaitanya S.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      / Match 100.0%; Score 107; DB 9; Local Similarity 100.0%; Pred. No. 1.7e-08; Pes 21; Conservative 0; Mismatches 0;
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21; Conserv
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Vedvick, Thomas S.
Carter, Darrick
Hill, Paul
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Algate, Paul A.
Fling, Steven P.
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Fanger, Gary Richard
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Gaps

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Sequence 300, Application US/09965738

Publication No. US20030143667A1

GENERAL INFORMATION:
APPLICANT: O'Brien, Timothy
ITITLE OF INVENTION: Repeat Sequences of the CA125 Gene and The:
TITLE OF INVENTION: Therapeutic Interventions
FILE REFERENCE: 40715-25884

CURRENT APPLICATION NUMBER: US/09/965,738

CURRENT FILING DATE: 2001-09-27
PRIOR APPLICATION NUMBER: US 60/284,175
PRIOR FILING DATE: 2001-04-17

NUMBER OF SEQ ID NOS: 306
SOFTWARE: Patentin version 3.0
                                                                                                                                                                                                                                                                                          US-09-965-738-300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-860-790-488
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US-10-860-790-488
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US-10-198-053-488
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APPLICANT: Bangur, Chaitanya S.
APPLICANT: Bangur, Chaitanya S.
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
APPLICANT: Hill, Paul
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C11
CURRENT APPLICATION UNMERE: US/10/860,790
CURRENT FILING DATE: 2004-06-02
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TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C9
CURRENT APPLICATION NUMBER: US/10/198,053
CURRENT FILING DATE: 2002-07-17
NUMBER OF SEQ ID NOS: 624
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 488
LENGTH: 233
TYPE: PRT
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 486
LENGTH: 233
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SEQ ID NO 300
LENGTH: 284
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Best Local
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Fanger, Gary R.
Hill, Paul
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Pred. No. 1.7e-08;
); Mismatches 0;
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US-10-198-053-594
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APPLICANT:
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APPLICANT: Carter, Darrick
APPLICANT: Hill, Paul
APPLICANT: Hill, Paul
APPLICANT: Albone, Earl
ITTLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C8
CURRENT APPLICATION NUMBER: US/09/907,969
CURRENT FILING DATE: 2001-07-17
NUMBER OF SEQ ID NOS: 596
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 594
LENGTH: 318
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; NAME/KEY: variant
; LOCATION: 136,248,268
; OTHER INFORMATION: Xaa = Any amino acid
US-09-907-969-594
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C9
CURRENT APPLICATION NUMBER: US/10/198,053
CURRENT FILING DATE: 2002-07-17
NUMBER OF SEQ ID NOS: 624
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 594
LENGTH: 318
                                                                                                                                                                                                                                                                                                                                                     Sequence 594, Application US/10198053 Publication No. US20030124140A1
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Publication No. US20030091580A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match 100.0%; Score 107; DB 10; Best Local Similarity 100.0%; Pred. No. 2.3e-08; Matches 21; Conservative 0; Mismatches 0;
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                                                                                                                                                                                                                         APPLICANT: Bangur, Chaitanya S.
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
APPLICANT: Hill, Paul
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             138 FRNSSIKSYFSDCQVSTFRSV 158
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Reed, Steven.
Vedvick, Thomas S.
Carter, Darrick
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Fanger, Gary Richard
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TYPE: PRT
ORGANIAM: Homo sapiens
FEATURE:
NAME/KEY: variant
LOCATION: 136,248,268
OTHER INFORMATION: Xaa = Any amino acid
US-10-198-053-594

Query Match
Best Local Similarity 100.0%; Score 107; DB 14; Length 318;
Best Local Similarity 100.0%; Pred. No. 2.3e-08;
Matches 21; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 FRNSSIKSYFSDCQVSTFRSV 21
Db 172 FRNSSIKSYFSDCQVSTFRSV 192

Search completed: October 27, 2005, 18:31:46
Job time: 67.2 secs
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Copyright

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Minimum DB
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Perfect score:
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   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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en Mtv13
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ALIGNMENTS

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R; Kawarabbyasi, Y.; Sawada, M.; Horikawa, H.; Haikawa, Y.; Hino, Y.; Yamamoto, S.; Sekine M.; Ohfuku, Y.; Funahashi, T.; Tanaka, T.; Kudoh, Y.; Yamazaki, J.; Kushida, N.; Oguchi, DNA Res. 5, 55-76, 1998
A;Title: Complete sequence and gene organization of the genome of a hyper-thermophilic a: A;Reference number: A71000; MUID:98344137; PMID:9679194
A;Reference number: P7192
A;Residues: preliminary; nucleic acid sequence not shown; translation not shown A;Status: preliminary; nucleic acid sequence not shown; translation not shown A;Residues: 1-496 <KAW>
A;Residues: 1-496 <KAW>
A;Residues: 1-496 <KAW>
A;Cross-references: UNIPROT:059477; GB:AP000007; NID:g3236134; PIDN:BAA30932.1; PID:g3258 A;Cross-references: UNIPROT:059477; GB:AP000007; NID:g3236134; PIDN:BAA30932.1; PID:g3258 A;Experimental source: strain OT3
A;Experimental source: strain OT3
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G75151
                                                                                                                                                                                                                                                                                                                                                                                                                  trk potassium uptake system protein (trkh) PAB0248 - Pyrococcus abyssi (strain Orsay) C;Species: Pyrococcus abyssi C;Date: 20-Aug-1999 #sequence_revision 20-Aug-1999 #text_change 09-Jul-2004 C;Accession: G75151
                                                                            A; Gene: trkH;
C; Superfamily:
                                                                                                                                                      A;Molecule type: DNA
A;Residues: 1-493 <KAW>
A;Cross-references: UNIPROT:Q9V1Q5; GB:AJ248284; GB:AL096836; NID:g5457730; PIDN:CAB49294
A;Experimental source: strain Orsay
                                                                                                                                                                                                                                                                                       A; Reference number: A75001
A; Accession: G75151
                                                                                                                                                                                                                                                                                                                                     submitted to the EMBL Data Library, July 1999
A,Description: Pyrococcus abyssi genome sequence: insights into
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                                                                                                                                C; Genetics:
                                                                                                                                                                                                                                                           A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                               R; anonymous,
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Query Match
Best Local Similarity
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Pred. No. 0.82
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A;Molecule type: DNA
A;Residues: 60-149,'C',151-902 <JON>
A;Residues: 60-149,'C',151-902 <JON>
A;Residues: 60-149,'C',151-902 <JON>
A;Residues: 60-149,'C',151-902 <JON>
A;Cobs-references: EMBL:X62834; NID:g3956; PIDN:CAA44637.1; PID:g3957
A;Cobs-references: EMBL:X62834; NID:g3956; NCBIN:88065, NCBIP:88066)
R;Lalo, D.; Carles, C.; Sentenac, A.; Thuriaux, P.
Proc. Natl. Acad. Sci. U.S.A. 90, 5524-5528, 1993
A;Title: Interactions between three common subunits of yeast RNA polymerases I and A;Reference number: S48883; MUID:93296170; PMID:8516295
A;Accession: S48883
                                                                                                                                                                                                                                                                 A;Cross-references: EMBL:L07419
R;Jones, B.A.; Fangman, W.L.
Genes Dev. 6, 380, 389, 192
A;Title: Mitochondrial DNA maintenance in yeast requires a protein containing A;Reference number: A42137; MUID:92192451; PMID:1532158
A;Accession: A42137
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                C;Date: 31-Dec-1993 #sequence revision 31-Dec-1993 #text change 09-Jul-2004
C;Accession: S33918; S36728; Ā42137; S48883; S60938; S67104; S67103; S71713
R;Guan, K.; Farh, L.; Marshall, T.K.; Deschenes, R.J.
Curr. Genet. 24, 141-148, 1993
A;Title: Normal mitochondrial structure and genome maintenance in yeast requires the dyn A;Reference number: S33918; MUID:93365024; PMID:7916673
A;Accession: S33918
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      dynamin-like protein MGM1 - yeast (Saccharomyces cerevisiae) N;Alternate names: protein O5010; protein YOR211c; protein YOR50-1
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A; Notacule type; DNA
A;Residues: 1-809 <SEE>
A;Cross-references: UNIPROT:094527; EMBL:AL035226; PIDN:CAA22832.1; GSPDB:GN00067
A;Experimental source: strain 972h-; cosmid c609
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A;Reference number: Z21938
A;Accession: T40574
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              guanine nucleotide binding protein beta subunit-like - fission yeast (Schizosaccharomycs
C;Species: Schizosaccharomyces pombe
C;Date: 03-Dec-1999 #sequence_revision 03-Dec-1999 #text_change 09-Jul-2004
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A; Residues: 1-902 <GUAl>
A; Residues: 1-902 <GUAl>
A; Cross-references: UNIPROT: P32266; EMBL: L07419
A; Note: it is uncertain whether Met-1 or Met-60:
A; Note: it is uncertain whether Met-1 or Met-60:
A; Guan, K.; Farh, L.; Marshall, T.; Deschenes, R
submitted to the EMBL Data Library, January 1992
A; Reference number: S36728
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Introns: 21/1; 52/2; 280/3; 780/2
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A;Residues: 1-190,'A',192-902 <GUA2>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ;Accession: S36728
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   is the initiator
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probable zinc finger protein - common cuttlefish C;Species: Sepia officinalis (common cuttlefish) C;Species: Sepia officinalis (common cuttlefish) C;Date: 06-Feb-1995 #sequence_revision 06-Feb-1995 #text_change 09-Jul-2004 C;Accession: $42357  
R;Martin-Ponthieu, A.; Wouters-Tyrou, D.; Pudlo, B.; Buisine, E.; Sautiere, Bur. J. Biochem. 220, 463-468, 1994  
A;Title: Isolation and characterization of a small putative zinc finger prot A;Reference number: $42357; MUID:94170795; PMID:8125104  
A;Accession: $42357
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S42357
     A;Cross-references: UNIPROT:P80304
C;Keywords: DNA binding; nucleus
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submitted to the Protein Sequence
submitted to the Protein Sequence
A;Reference number: $66685
A;Accession: $67103
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Galisson, F.; Dujon, B. submitted to the EMBL Data Library, October 1995
                                                       A; Molecule type: protein 
A; Residues: 1-51 < MAR>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Cross-reterences:
A;Map position: 15R
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Title: Sequence and analysis of a 33 kb fragment from the right arm of chromosome A;Reference number: S71713; MUID:96437977; PMID:8840505
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A; Residues: 179-902 < HUG>
A; Cross-references: EWBL: Z75119; MIPS: YOR211c
A; Experimental Source: Strain S288C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Roseidues: 1-805 <BOY>
A; Cross-references: EMBL: Z75119; MIPS: YOR211c
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A;Accession: S67104
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A; Accession: S60938
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A;Note: the nucleotide sequence was submitted to the EMBL Data Library, Fe
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A; Residues: 734-902 <LAL>
                                                                                                         A;Status: preliminary
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A; Residues: 1-150 < GAW>
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Yeast 12, 877-885,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ;Description: mitochondrial genome maintenance;Reywords: GTP binding; P-loop;Reywords: GTP binding; mitochondrion; nucleotide binding; P-loop
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DNA binding; nucleus
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RESULT
C70113
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                                                                                                                                                                                                                                                                                                                                                                                                                                                probable pectinesterase (BC 3.1.1.11) [imported] - Yersinia pestis (strain C;Species: Yersinia pestis (strain C;Date: 02-Nov-2001 #sequence_revision 02-Nov-2001 #text_change 09-Jul-2004 C;Accession: AG0052
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Nature 390, 580-586, 1997
A;Authors: Smith, H.O.; Venter, J.C.
A;Title: Genomic sequence of a Lyme disease spirochaete,
A;Reference number: A70100, MUID:98065943; PMID:9403685
A;Accession: C70113
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C;Superfamily: nusB protein
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   RESULT
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                                                                                                                                                                                                                                                                          A; Molecule type: DNA
A; Residues: 1-361 < KUR>
                                                                                                                                                                                                                                                                                                                                           A;Title: Genome sequence of Yersinia pestis, the causative agent of plague.
A;Reference number: AB0001; MUID:21470413; PMID:11586360
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                                                                                                                                                                                        Keywords: carboxylic ester hydrolase
                                                                                                                                                                                                          Superfamily:
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                                                                                                                     Similarity 6; Conser
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                                                               A;Status: preliminary; translated
A;Molecule type: genomic RNA
A;Residues: 1-1148 <MAR>
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A; Residues: 1-790 < TAY>
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A; Description:
                                A; Experimental source: strain
                                                                                                                                                                     A; Title:
                                                                                                                                                                                                                      C; Accession:
                                                                                                                                                                                                                                                                                             T00016
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A; Status: preliminary
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Best Local
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Best Local
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vector
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                                                                                                                                                                                                                                                                                                                                                                 501
transmissibility
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C;Accession: F97260

R;Nolling, J.; Breton, G.; Omelchenko, M.V.; Markarova, K.S.;
Daly, M.J.; Bennett, G.N.; Koonin, E.V.; Smith, D.R.
J. Bacteriol. 183, 4823-4838, 2001

A;Title: Genome Sequence and Comparative Analysis of the Solve A;Reference number: A96900; MUID:21359325; PMID:21359325

A;Accession: F97260
A; Cross-references: UNIPROT: 055519; A; Experimental source: strain O
                                                                                                                  A;Reference number: Z14054; MUID:97300849; PMID:9155869
A;Accession: T00016
                                                                                                                                                                                                                    R;Maruyama, W.; Ichimi, K.; Fukui, Y.; Yan, J.; Zhu, Y.; Kamiunten, H.; Omura, Arch. Virol. 142, 1-9, 1997
                                                                                                                                                                                                                                                                                C;Species: rice dwarf virus
C;Date: 22-Jan_1999 #sequence_revision 22-Jan-1999 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                               minor outer capsid protein, 127K - rice dwarf virus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A;Cross-references: UNIPROT:Q42572; EMBL:X97924; C;Superfamily: yeast polydeoxyribonucleotide synt C;Keywords: ATP; ligase
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R;Taylor, R.M.; Rosamond, J.; Tobin, A.K submitted to the EMBL Data Library, May A;Description: The cloning and sequence A;Reference number: $71278
A;Accession: $71278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DNA ligase (ATP) (EC 6.5.1.1) - Arabidopsis thaliana C;Species: Arabidopsis thaliana (mouse-ear cress) C;Date: 28-Oct-1996 #sequence_revision 27-Feb-1997 #C;Accession: S71278
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A;Molecule type: DNA A;Molecule type: DNA A;Residues: 1-401 <KUR> A;Residues: 1-401 <KUR> A;Cross-references: UNIPROT:Q97F24; GB:AE001437; PIDN:AAK80873.1; A;Experimental source: Clostridium acetobutylicum ATCC824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            uncharacterized conserved membrane protein CAC2931 [imported] - Clostridium acetobutylicu C;Species: Clostridium acetobutylicum C;Date: 14-Sep-2001 #sequence_revision 14-Sep-2001 #text_change 09-Jul-2004
                                                                                                                                                                                           The minor outer capsid protein P2 of rice gall
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                                                                                             from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 43; DB
Pred. No. 75;
                    EMBL:AB001579;
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May 1996
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                                                                                             GB/EMBL/DDBJ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-Feb-1997 #text_change
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39;
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synthase (ATP)
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RESULT 11
S03770
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C;Keywords: carboxylic ester hydrolase
F;1-24/Domain: signal sequence #status predicted
F;25-366/Product: pectin esterase #status predict
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              R;Plastow, G.S.
Mol. Microbiol. 2, 247-254, 1988
A;Title: Molecular cloning and nucleotide:
A;Reference number: S03770; MUID:88246052;
A;Accession: S03770
                                                                                                                                                                                                                                                                         A;Residues: 25-34 <LA1>
C;Comment: This enzyme is required
                                                                                                                                                                                                                                                                                                                                                                                                                             A; Molecule type: DNA
A; Residues: 1-366 < LAU>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                R;Laurent, F.; Kotoujansky, A.; Labesse, G.;
Gene 131, 17-25, 1993
A;Title: Characterization and overexpression
A;Reference number: JN0799; MUID:93380669; PM
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    RESULT 12
JN0799
pectinesterase (EC 3.1.1.11) precursor - Erwinia chrysanthemi
N;Alternate names: pectin methylesterase
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A; Residues: 1-366 < PLA>
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N;Alternate names: pectin methylesterase
C;Species: Erwinia chrysanthemi
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                                                                                                                                                                                                                                                                                                     A; Molecule type: protein A; Residues: 25-34 < LA1>
                                                                                                                                                                                                                                                                                                                                                       A; Accession: PN0623
                                                                                                                                                                                                                                                                                                                                                                           A, Cross-references: UNIPROT: P07863, A, Experimental source: strain 3937
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A; Cross-references: UNIPROT: P07863; GB:Y00549;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Accession: JN0799
                                                                                                                                                                                                                               A;Gene: pem
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|Species: Erwinia chrysanthemi
|Date: 03-May-1994 #sequence_revision 03-May-1994 #text_change
|Accession: JN0799; PN0623
                                                                                                                                                 ;Superfamily: pectinesterase;
Keywords: carboxylic ester hydrolase;
1-24/Domain: signal sequence #status predicted
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Best I
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                                                                                                                               ;25-366/Product:
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                                                                                                                               #status
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 Mismatches

                                                   Score 42; DB
Pred. No. 51;
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Pred. No. 1.1e+02;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Score 42; DB Pred. No. 51;
                                                                                                                                                                                                                                                                                for
                                                                                                                                                                                                                                                                                                                                                                                                     GB:L07644; NID:g148465; PIDN:AAA24852.1; PID:g148466
                            Mismatches
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PMID:8370537
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                    glucose-6-phosphate 1-dehydrogenase (EC 1.1.1.49) [imported] - Yersinia pestis C;Species: Yersinia pestis C;Daccies: Yersinia pestis C;Date: 02-Nov-2001 #sequence_revision 02-Nov-2001 #text_change 09-Jul-2004 C;Accession: AB0252 R;Parkhill, J.; Wren, B.W.; Thomson, N.R., Titball, R.W.; Holden, M.T.G.; Prent R;Parkhill, J.; Wren, B.W.; Thomson, N.R., Titball, R.W.; Holden, M.T.G.; Prent R;Parkhill, J.; Wren, B.W.; Thomson, N.R., Titball, R.W.; Holden, M.T.G.; Prent R;Parkhill, J.; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prent R;Parkhill, J.; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prent R;Parkhill, J.; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prent R;Parkhill, J.; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prent R;Parkhill, J.; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prent R;Parkhill, J.; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prent R;Parkhill, J.; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prent R;Parkhill, J.; Wren, B.W.; Thomson, N.R.; Titball, R.W.; Holden, M.T.G.; Prent R;Parkhill, R
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A; Residues: 1-368 < DUZ>
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B.W.; Thomson, N.
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A;Cross-references: UNIPROT:P91179; EMBL:U80445; PIDN:AAB37798.1; A;Experimental source: strain Bristol N2; clone C50F2 C;Genetics:
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C;Species: Caenorhabditis elegans
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                                                                                                                                                                                                                                                                                                                                                                                                                                                hypothetical protein C50F2.5 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #t
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N.R.; Titball, .; Cronin, A.;

R.W.; Holden, Davies, R.M.;

Davis, P.

Prentice, .; Dougan,

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Mature 413, 523-727, 2001

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Q63ec9	Q81tm0	Q86bh3	Q9na57	w	-	Q8d4j2	-	-	Q8w5j3	Q6mmq0	Q8gc33	Q61pv1	Q757c9
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ALIGNMENTS

SO	RRARARA	RA RA RA RA	RN RA	RESULT Q9H7S7 ID Q9H7S7 OC DT
DAMA: 7; Nat. Genet. 36:40-45(2004). EMBL; AK024365; BAB14899.1; HSSP; Q9D1H1; 11VZ. Interfro; IPR000082; SEA. Pfam; PF01390; SEA; 7. PROSITE; PS50024; SEA; 3. SEQUENCE 1148 AA; 127957 MW; 3861B0D5EFDF8ABC CRC64;	a K., Nakajima Y., Mizuno T., Morinaga M., Sasaki M., T., Oyama M., Hata H., Watanabe M., Komatsu T., T., Oyama O., Hata H., Watanabe M., Komatsu T., Takahashi Y., Nakagawa Sugano J., Satoh T., Shirai Y., Takahashi Y., Nakagawa K., Nagase T., Nomura N., Kikuchi H., Masuho Y., Yamashi, Yada T., Nakamura Y., Ohara O., Isogai T., Sugano S., Yada T., Nakamura Y., Ohara O., Isogai T., Sugano S.,	Yoshikawa Y., Matsunawa H., Ichihara T., Shiohata N., Sano S., Moriya S., Momiyama H., Satoh N., Takami S., Terashima Y., Suzuki O., Nakagawa S., Senoh A., Mizoguchi H., Goto Y., Shinizu F., Wakebe H., Hishigaki H., Watanabe T., Sugiyama A., Takemoto M., Kawakami B., Yamazaki M., Watanabe K., Kumaggi A., Takura S., Fukuzumi Y., Yamazaki M., Watanabe K., Kumaggi A., Tickura S., Fukuzumi Y., Fujiwara T., Fujiwara T., Yoshimori Y., Komiyama M., Tashira H., Tikama Y., Okamoto S., Cono T., Yamada K., Fujii Y., Ozaki K., Hirao M., Ohmori Y., Okamoto S., Kawabata A., Hikiji T., Kobatake N., Inagaki H., Ikema Y., Okamoto S., Okitani R., Kawakami T., Noquchi S., Itoh T., Shioeta K., Senba T., Okitani R., Kawakami T., Noquchi S., Itoh T., Shioeta K., Senba T.,	SEQUENCE FROM N.A. TISSUB-Placenta; TISSUB-Placenta; PubMed-14702039; DOI=10.1038/ng1285; Ota T., Suzuki Y., Nishikawa T., Otsuki T., Sugiyama T., Irie R., Wakamatsu A., Hayashi K., Sato H., Nagai K., Kimura K., Makita H., Sekine M., Obayashi M., Nishi T., Shibahara T., Tanaka T., Ishii S., Yamamoto J., Saito K., Kwawi Y., Isono Y., Nakamura Y., Nagahari K., Murakami K., Yasuda T., Iwayanagi T., Wagatsuna M., Shiratori A., Sudo H., Hosoiri T., Kaku Y., Kodaira H., Kondo H., Sugawara M., Takahashi M., Kanda K., Yokoi T., Furuya T., Kikkawa E., Omura Y., Abe K., Kamihara K., Katsuta N., Sato K., Tanikawa M., Yamazaki M., Ninomiya K., Ishibashi T., Yamashita H., Murakawa M., Yamazaki M., Tanai H., Kimata M., Watanabe M., Hiraoka S., Chiba Y., Ishida S., Ono Y., Takiguchi S., Watanabe M., Hiraoka S., Chiba Y., Ishida S., Kanebori K., Takahashi-Fujii A., Hara H., Tanase T., Nomura Y., Togiya S., Komai F., Hara R., Takeuchi K., Arita M., Imose N., Musashino K., Yuki H., Oshima A., Sasaki N., Aotsuka S.,	O9H7S7 PRELIMINARY; PRT; 1148 AA. O9H7S7; PRELIMINARY; PRT; 1148 AA. O9H7S7; O1-MAR-2001 (TrEMBLrel. 16, Created) O1-MAR-2003 (TrEMBLrel. 23, Last sequence update) O1-MAR-2003 (TrEMBLrel. 23, Last annotation update) Hypothetical protein FLJ14303. Homo sapiens (Human). Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. NCBI TaxID-9606;

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RESULT RE
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PROSITE; PS00152; ATPASE_ALPHA_BETA;
PROSITE; PS50024; SEA; 6.
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MEDLINE=21347965; Pub
Yin B.W., Lloyd K.O.;
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Mammalia; Eutheria; Primates;
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Submitted (SEP-2003) to the
EMBL; AF361486; AAK74120.3;
HSSP; Q9D1H1; 1IVZ.
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01-MAR-2004 (TrEMBLrel. 26,
01-MAR-2004 (TrEMBLrel. 26,
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Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
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Pfam; PF01390; SEA; 20
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J. Biol. Chem. 276:27371-27375(2001).
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                                             sequences.
                                                                 York L.;
"The CA 125 gene: an
                                                                                                                                                                                                                                                             NCBI_TaxID=9606;
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                      Biol.
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                                                                                                                                        T.J., Beard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FRNSSIKSYFSDCQVSTFRSV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6995 AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRELIMINARY;
                   22:348-366 (2001)
                                                                                                                                     PubMed=11786729; DOI=10.1159/000050638; rd J.B., Underwood L.J., Dennis R.A., Sa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PubMed=11369781; DOI=10.1074/jbc.M103554200,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 100.0%;
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                                                                              extracellular
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Last annotation update)
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                                                                                                                                                                                                                                                                                                 Craniata; Vertebrata;
Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 107; DB 2;
Pred. No. 3.4e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 107;
Pred. No. !
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRT;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRT;
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                                                                              superstructure
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                                                                                                                                                                                                                                                                                                                               Euteleostomi;
                                                                                                                                           Santin
                                                                              by repeat
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Best Local
Matches :
[5]
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Whole body;
STRAIN=C57BL/6J; TISSUE=Whole body;
MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
MEDLINE=20530913; DOI=10.1101/gr.152600;
MEDLINE=205309130913; DOI=10.1101/gr.152600;
MEDLINE=20530913; DOI=10.1101/gr.152600;
MEDLINE=20530913; DOI=10.1101/gr.152600;
MEDLINE=20530913
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Q9D1H1;

01-JUN-2001 (TrEMBLrel. 17, Created)

01-JUN-2001 (TrEMBLrel. 17, Last sequence update)

01-JUN-2003 (TrEMBLrel. 24, Last annotation update)

Mus musculus 18-day embryo whole body cDNA, RIKEN full-length enriched

library, clone:1110008114 product:hypothetical SEA domain containing

protein, full insert sequence.
                                                                                                                                                                         SEQUENCE FROM N.A.

STRAIN-C57BL/6J; TISSUE=Whole body;

MEDLINE=20499374; PubMed=11042159; DOI=10.1101/gr.145100;

Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K.,

Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;

"Normalization and subtraction of cap-trapper-selected cDNAs to prepare full-length cDNA libraries for rapid discovery of new Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                EMBL; AF414442; AAL65133.2; -. Genew; HGNC:15582; MCC16.

Pfam; PF01390; SEA; 71.

SMART; SM00200; SEA; 23.

PROSITE; PS00152; ATPASE ALPHA BETA; PROSITE; PS00152; ASA; 11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              O'Brien T.J., Underwood L.J., Beard J.B.; Submitted (OCT-2002) to the EMBL/GenBank/DDBJ databases
                                                                                                                                                                                                                                                                                                                                                                                                                            The FANTOM Consortium,
the RIKEN Genome Exploration Research Group Phase I & II
"Analysis of the mouse transcriptome based on functional
60,770 full-length cDNAs.":
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "runctional annotation of Nature 409:685-690(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Carninci P., Hayashizaki Y.; "High-efficiency full-length cI Meth. Enzymol. 303:19-44(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       [3]
SEQUENCE FROM N.A.
SEQUENCE FROM N.A.
TISSUE=Whole body;
                                                                                                                                                                                                                                                                                                                                                                                                     60,770 full-length cDNAs.";
Nature 420:563-573(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Functional annotation of a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN=C57BL/6J; TISSUE=Whole body; MEDLINE=99279253; PubMed=10349636;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=21085660;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mus musculus (Mouse)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Name=1110008I14Rik;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   22152 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TISSUE=Whole body; PubMed=11217851;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            full-length mouse cDNA collection.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cDNA cloning
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     22026
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            DOI=10.1038/35055500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              DOI=10.1016/S0076-6879(99)03004-9;
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A Adachi J., Aizawa K., Akahira S., Akimura T., Arai A., Aono H.,
A Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,
A Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,
A Hanagaki T., Hara A., Hayatsu N., Hiramoto K., Hiraoka T., Hori F.,
I Imotani K., Ishii Y., Itoh M., Izawa M., Kasukawa T., Kato H.,
A Imotani K., Ishii Y., Konno H., Kouda M., Koya S., Kurihara C.,
A Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
A Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M.,
A Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki T.,
A Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
A Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
A Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai T.,
A Sano H., Sasaki D., Shibata K., Shibata Y., Shihagawa A., Shiraki T.,
A Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T.,
A Tejima Y., Toya T., Yamamura T., Yasunishi A., Yoshida K., Yoshino M.,
A Muramatsu M., Hayashizaki Y.,
B Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
B MED., MRS., A=60.190.
B PBJ, ITUZ, NMR, A=60.190.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           01-AUG-1998
01-AUG-1998
01-JUN-2003
                                                                                                                                 Kawarabayasi Y., Sawada M., Horikawa H., Haikawa Y., Hino Y., Yamamoto S., Sekine M., Baba S.-I., Kosuyi H., Hosoyama A., Nagai Sakai M., Ogura K., Otsuka R., Nakazawa H., Takamiya M., Ohfuku Y. Funahashi T., Tanaka T., Kudoh Y., Yamazaki J., Kushida N., Oguchi Aoki K.-I., Yoshizawa T., Nakamura Y., Robb F.T., Horikoshi K., Masuchi Y., Shizuya H., Kikuchi H., "Complete sequence and gene organization of the genome of a hyperthermophilic archaebacterium, Pyrococcus horikoshii OT3.";
GO; GO:001
GO; GO:000
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InterPro;
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Pyrococcus horikoshii.
Archaea; Euryarchaeota; T
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01-AUG-1998 (TrEMBLrel.
01-JUN-2003 (TrEMBLrel.
496aa long hypothetical
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InterPro; IPR000082; SEA.
Pfam; PF01390; SEA; 1.
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PROSITE; PS50024; SEA; 1.
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        L; AP00007; BAA30932.1; -.
; E71192; E71192.
G0:0016021; C:integral to membrane;
G0:0008324; F:cation transporter act
G0:0006812; P:cation transport; IEA.
                                                                                                                    Res. 5:55-76(1998)
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system potassium uptake
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ma A., Nagai Y.,
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RESULT 7 Q7RFZ5

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Q7RFZ5 PRELIMINARY; Q7RFZ5; 01-MAR-2004 (TrEMBLrel. 26,

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Q6CS86
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RA Lafontaine I., de Montigny J., Marck C., Neuveglise C., Talla E.,
RA Goffard N., Frangeul L., Aigle M., Anthouard V., Babour A., Barbe V.,
RA Barnay S., Blanchin S., Beckerich J.M., Beyne E., Bleykasten C.,
RA Boisrame A., Boyer J., Cattolico L., Confanioleri F., de Daruvar A.,
RA Bespons L., Fabre E., Fairhead C., Ferry-Dumazet H., Groppi A.,
RA Hantraye F., Hennequin C., Junniaux N., Joyet P., Kachouri R.,
RA Kerrest A., Koszul R., Lemaire M., Lesur I., Ma L., Muller H.,
RA Kerrest A., Koszul R., Lemaire S., Ozter F., Koszul S.,
RA Nicaud J.M., Nikolski M., Oztas S., Ozter Kalogeropoulos O.,
RA Pellenz S., Potier S., Richard G.F., Straub M.L., Suleau A.,
RA Swennene D., Tekaia F., Wesolowski-Louvel M., Westhof E., Wirth B.,
RA Scaniou-Meyer M., Zivanovic I., Bolotin-Fukuhara M., Thierry A.,
RA Wincker P., Souciet J.L.;
"Genome evolution in yeasts.";
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Q6CS86;
25-OCT-2004 (TrEMBLrel. 28, Created)
25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
Kluyveromyces lactis strain NRRL Y-1140 chromosome |
1140 of Kluyveromyces lactis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Complete proteome; Hypothetical protein. SEQUENCE 496 AA; 55062 MW; 599AAF1CA8711EA2 CRC64;
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Pfam; PF02386; TrkH;
TIGRFAMs; TIGR00933;
                                                                                                                     SEQUENCE
                                                                                                                                   Pfam;
                                                                                                                                              Submitted (JUL-2004) to the EMBL; CR382124; CAH00299.1; InterPro; IPR007852; Cdc73.
                                                                                                                                                                                           Genoscope;
                                                                                                                                                                                                       SEQUENCE FROM N.A.
STRAIN=NRRL Y-1140;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM
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Saccharomycetales; Saccharomycetaceae; Kluyveromyces.
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ICE 368 AA; 4;
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                        RNSSIKSYFSDCOVSTFRSV 21
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nilarity 45.0%;
Conservative
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3; Mismatches
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T 01-MAR-2003 (TrEMBLrel. 23, Last annotation up
3 Hypothetical protein PF13_0219.
4 Name=PF13_0219;
5 Plasmodium falciparum (isolate 3D7).
5 Eukaryota; Alveolata; Apicomplexa; Haemosporida
[11]
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Q8IDT3;
Q1-MAR-2003
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Hypothetical
SEQUENCE 66
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Carucci D.
                                                                                                                                                                                SEQUENCE FROM N.A.

Harris B., Lennard N., Clark L., Line A., Barron A., Corton Berriman M., Pain A., Hall N., Atkin R., Chillingworth C., Dormond D., Sanders M., Hayes R., Hall S., Quail M., Barrell Submitted (SEP-2002) to the EMBL/GenBank/DDBJ databases.

EMBL, AL844509; CAD52536.1; -.

Hypothetical protein.

SEQUENCE 955 AA; 114349 MW; 10AB720DBCEFC999 CRC64;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               "Genome sequence and comparative analysis of the parasite Plasmodium yoelii yoelii."; Nature 419:512-519(2002).
-!- CAUTION: The sequence shown here is derived f EMBL/GenBank/DDBJ whole genome shotgun (WGS) preliminary data.
EMBL; AABLO1001396; EAA16437.1; -.
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Carlton J.M., Angiuoli S.V., Suh B.B., Ko
Silva J.C., Ermolaeva M.D., Allen J.S., S
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Eukaryota; Alveolata; Api
NCBI_TaxID=73239;
[1]
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01-MAY-2000 (TrEMBLre)
01-JUN-2003 (TrEMBLre)
TrkG/H trk potassium u
ORFNames=PAB0248;
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Q75L03;
Q75L03;
05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation update)
4 (Contains similar to RNA recognition motif. (A.k.a. RRM, RBD, or RNP domain), PF00076' (Putative RNA recognition motif (RRM)-containing
SEQUENCE FROM N.A.

Chow T.-Y., Hsing Y.-I.C., Chen C.-S., Chen H.-H., Liu S.-M., Choo Y.-T., Chang S.-J., Chen H.-C., Chen S.-K., Chen T.-R., Chen Y.-L., Cheng C.-H., Chung C.-I., Han S.-Y., Hsiao S.-H., Hsiung J.-N., Hsu C.-H., Huang J.-J., Kau P.-I., Lee M.-C., L
                                                                                                                                                        Chow T.-Y., Hsing Y.-I.C., Chen C.-S., Chen H.-H., Liu S.-M., Chao Y.-T., Lee P.-F., Chang S.-J., Chen H.-C., Chen S.-K., Chen T.-R., Chen Y.-L., Cheng S.-H., Chung C.-I., Han S.-Y., Hsiao S.-H., Hsiung J.-N., Hsu C.-H., Kau P.-I., Lee M.-C., Leu Li Y.-F., Lin S.-J., Lin Y.-C., Wu S.-W., Yu C.-Y., Yu S.-W., Wu H.-P., Shaw J.-F.; Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databases.
                                                                                                                                                                                                                                                                                                                                                                                                                Name=OSJNBb0041A22.21; Synonyms=OJ1654_B10.6;
Oryza sativa (japonica cultivar-group).
Gukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Shrhartoideae; Oryzeae; Oryza.
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MEDLINB=22511545; PubMed=12622808;

MEDLINB=22511545; PubMed=12622808;

Cohen G.N., Barbe V., Flament D., Galperin M., Heilig R., Lecom Poch O., Prieur D., Querellou J., Ripp R., Thierry J.-C., Van der Oost J., Weissenbach J., Zivanovic Y., Forterre P.;

"An integrated analysis of the genome of the hyperthermophilic archaeon Pyrococcus abysis of the Microbiol. 47:1495-1512(2003).

EMBL, AJ248284; CAB49294.1; -.
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InterPro; IPR000504; RNA rec_mot.
InterPro; IPR000504; RNA rec_mot.
InterPro; IPR001878; Znf_CCHC.
Pfam; PP00076; RRM 1; 2.
Pfam; PP00098; zf-CCHC; 4.
PRINTS; PR00939; C2HCZNFINGER.
SMART; SM00360; RRM; 2.
SMART; SM00360; RRM; 2.
SMART; SM00343; ZnF_C2HC; 4.
PROSITE; PS000485; A DEAMINASE; UNKNOWN_1.
PROSITE; PS000485; AF CCHC; 4.
SPROSITE; PS50158; ZF-CCHC; 4.
SEQUENCE 548 AA; 60337 MW; 5B71485E2602;
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Q7RCM2;
01-MAR-2004
01-MAR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                          PubMed=12368665; DOI=10.1038/nature01099;
Carlton J.M., Angluoli S.V., Suh B.B., Kooij T.W., Pertea M.,
Silva J.C., Ermolaeva M.D., Allen J.E., Selengut J.D., Koo H.L.,
Silva J.C., Ermolaeva M.D., Allen J.E., Selengut J.D., Koo H.L.,
Peterson J.D., Pop M., Kosack D.S., Shunway M.F., Bidwell S.L.,
Shallom S.J., van Aken S.E., Riedmuller S.B., Feldblyum T.V.,
Cho J.K., Quackenbush J., Sedegah M., Shoabib A., Cummings L.M.,
Florens L., Yates F.R. III, Raine J.D., Sinden R.E., Harris M.A.,
Cunningham D.A., Preiser P.R., Bergman L.W., Vaidya A.B.,
van Lin L.H., Janse C.J., Waters A.P., Smith H.O., White O.R.,
Salzberg S.L., Venter J.C., Fraser C.M., Hoffman S.L., Gardner M.,
Carlocci D.J.,
                                                                                                                                                                                                                                                                                                                                                                 "Genome sequence and comparative analysis of the model rodent malaria parasite Plasmodium yoelii yoelii.";
Nature 419:512-519(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Plasmodium yoelii yoelii.
Eukaryota; Alveolata; Api
Eukaryota; Alveolata; Api
NCBI TaxID=73239;
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01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation updat
Hypothetical protein (Fragment).
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EMBL; AC108504; AAU44075.1; -.
GO; GO:0003676; F:nucleic acid binding;
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NON_TER 1
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                                                                                                                                                                                                                                                                                                             CAUTION: The sequence shown here is derived EMBL/GenBank/DDBJ whole genome shotgun (WGS)
  1152
                                                                                                                                                                                                                                                                                             preliminary data.
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Pred. No.
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WEDLINE-21846401; PubMed=11859360; DOI=10.1038/nature724;

Wood V., Gwilliam R., Rajandream M.A., Lyne M., Lyne R., Stewart A.,

A Sgouros J., Peat N., Hayles J., Baker S., Basham D., Bowman S.,

A Brooks K., Brown D., Brown S., Chillingworth T., Churcher C.,

Collins M., Connor R., Cronin A., Davis P., Feltwell T., Fraser A.,

A Gentles S., Goble A., Hamlin N., Harris D., Hidalgo J., Hodgson G.,

A Holroyd S., Hornsby T., Howarth S., Huckle E.J., Hunt S., Jagels K.,

James K., Jones L., Jones M., Leather S., McDonald S., McLean J.,

A Mooney P., Moule S., Mungall K., Murphy L., Niblett D., Odell C.,

A Jones K., O'Neil S., Pearson D., Quail M.A., Rabbinowitsch E.,

AN Oliver K., O'Neil S., Pearson D., Quail M.A., Rabbinowitsch E.,

A Rutherford K., Rutter S., Saunders D., Seeger K., Sharp S.,

Skelton J., Simmonds M., Squares R., Squares S.,

A Raylor K., Taylor R.G., Tivey A., Walsh S., Warren T., Whitehead S.,

Woodward J., Volckaert G., Aert R., Robben J., Grymonprez B.,

Waltjens I., Vanstreels E., Rieger M., Schafer M., Muller-Auer S.,

A Weltjens I., Vanstreels E., Rieger M., Schafer M., Mosestl D.,

Gabel C., Fuchs M., Dusterhoft A., Fritzc C., Holzer E., Moestl D.,

A Hilbert H., Borzym K., Langer I., Beck A., Lehrach H., Reinhardt R.,
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Best Local S
Matches 8
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01-JUN-2003 (TrEMBLrel. 24, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last amoutation update)
Similar to Dictyostelium discoideum (Slime mold).
Dictyostelium discoideum (Slime mold).
Eukaryota; Mycetozoa; Dictyosteliida; Dictyostelium.
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01-MAY-1999 (TrEMBLrel. 10,
01-MAR-2004 (TrEMBLrel. 26,
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Q86I28;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SPBC609.03 protein.
Name=SPBC609.03;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NCBI_TaxID=4896;
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larity 38.1%;
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Last annotation update)
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                                                                                                                                                                                                                                                                                                                                                                                                    PRINTS; PR00320; GPROTEINBRPT.
PRODOM; PD000018; WD40; 1.
SMART; SM00320; WD40; 6.
PROSITE; PS00678; WD REPEATS 1; UNKNOWN 1.
PROSITE; PS50082; WD REPEATS 2; 1.
PROSITE; PS50294; WD_REPEATS_REGION; 2.
Repeat; WD repeat.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    29-MAR-2004 (Rel. 43, Created)
29-MAR-2004 (Rel. 43, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
Indole-3-glycerol phosphate synthase (EC 4.1.1.48) (IGPS).
Name=trpC; OrderedLocusNames=BC1255;
Bacillus Cereus (strain ATCC 14579 / DSM 31).
Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus.
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EMBL; AL035226; CAA22832.1; -.
PIR; T40574; T40574.
                                                                                                                         This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Grechkin Y., Pusch G., Haselkorn R., Fon
Overbeek R., Kyrpides N.C.;
"Genome sequence of Bacillus cereus and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=22608415, PubMed=12721630; DOI=10.1038/nature01582; Ivanova N., Sorokin A., Anderson I., Galleron N., Candelon B., Kapatral V., Bhattacharyya A., Reznik G., Mikhailova N., Lapidus A., Chu L., Mazur M., Goltsman B., Larsen N., D'Souza M., Walunas T.,
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InterPro; IPRO11046; WD40 like.
Pfam; PP00400; WD40; 5.
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Goffeau A., Cadieu
Galibert F., Aves S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Bacillus anthracis."
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36.8%;
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Pred. No. 76;
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RA Boyer J., Camasses A., Casamayor A., Casas C., Cheret G.,
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RA Boyer J., Camasses A., Casamayor A., Casas C., Cheret G.,
RA Cziepluch C., Daignan-Fornier B., Dang D.V., de Haan M., Delius H.,
RA Cziepluch C., Daignan-Fornier B., Dang D.V., de Haan M., Delius H.,
RA Durand P., Fairhead C.A., Feldmann H., Gaillon L., Galisson F.,
RA Gamo F.-J., Gancedo C., Goffeau A., Goulding S.E., Grivell L.A.,
RA Habbig B., Hand N.J., Hant D., Hattenhorst U., Hebling U.,
RA Hernando Y., Herrero E., Heumann K., Hiesel R., Hilger F., Hofmann B.,
RA Hernando Y., Herrero E., Heumann K., Hiesel R., Hilger F., Hofmann B.,
RA Hernando Y., Herrero E., Heumann K., Hiesel R., Hilger F., Hofmann B.,
RA Atteoulou C., Kordes B., Jauniaux J.-C., Kalogeropoulos A.,
RA Kateoulou C., Madania A., Mannhaupt G., Marck C., Martin R.P.,
RA Maarse A.C., Madania A., Mannhaupt G., Marck C., Martin R.P.,
RA Mewes H.-W., Michaux G., Paces V., Parle McDermott A.G., Pearson B.M.,
RA Perrin A., Pettersson B., Poch O., Pohl T.M., Poirey R.,
RA Portetelle D., Pujol A., Purnelle B., Ramezani Rad M., Rechmann S.,
RA Portetelle C., Schweizer M., Sor F., Sterky F., Tarassov I.A.,
RA Portetelle C., Schweizer M., Sor F., Sterky F., Tarassov I.A.,
RA Teodoru C., Tettelin H., Thierry A., Tobiasch E., Tzermia M.,
Volckert G., Voss H., Wambutt R., Wedler H., Wiemann S.,
RA Winsor B., Wolfe K.H., Zollner A., Zumstein E., Kleine K.;
"The nucleotide sequence of Saccharomyces cerevisiae chromosome Xv.";
RN Mature 387:98-102(1997).
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Best Local :
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InterPro; IPR003009; FMN enzyme.
InterPro; IPR001468; IGPS.
InterPro; IPR011060; RibP_bind_barrel.
InterPro; IPR011060; RibP_bind_barrel.
Pfam; pF00218; IGPS; 1.
ProDom; pF001511; IGPS; 1.
PROSITE; PS00614; IGPS; 1.
Complete proteome; Decarboxylase; Lyase; Tryptophan biosynthesis.
251 AA; 28289 MW; 2519649E1A8081C8 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MGMI YEAST STANDARD; PRT; 881 AA.
P32266; Q02609; Q08627;
01-CCT-1993 (Rel. 27, 'Created)
05-UUL-2004 (Rel. 44, Last sequence update)
25-OCT-2004 (Rel. 45, Last annotation update)
25-OCT-2004, mitochondrial precursor.
MGMI procein, mitochondrial precursor.
Name=MGMI, OrderedLocusNames=YOR211C; ORFNames=YOR50-1;
Saccharomyces cerevisiae (Baker's yeast).
Sukaryota; Pungi; Ascomycota; Saccharomycettes;
Saccharomycetales; Saccharomycetaceae; Saccharomycetes;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MEDLINE=93365024; PubMed=7916673;
Guan K., Farh L., Marshall T., Deschenes R.J.;
"Normal mitochondrial structure and genome maintenance
requires the dynamin-like product of the MGM1 gene.";
Curr. Genet. 24:141-148(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Jones B.A., Fangman W.L.; "Jones B.A., Fangman W.L.; "Mitochondrial DNA maintenance in yeast requires a protein containing a region related to the GTP-binding domain of dynamin."; Genes Dev. 6:380-389(1992).
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  SEQUENCE
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les 8; Conserv
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Pred. No. 32;
                                                                    chromosome XV.";
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PubMed=1256426; DOI=10.1083/jbb.200209015;
Wong E.D., Wagner J.A., Scott S.V., Okreglak V., Holewins Cassidy-Stone A., Nunnari J.;
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"The yeast dynamin-like protein, Mgmlp, functions on touter membrane to mediate mitochondrial inheritance.";
J. Cell Biol. 144:711-720(1999).
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Herlan M., Vogel F., Bornhovd C., Neupert W., Reichert A.S.;
"Processing of Mgml by the rhomboid-type protease Pcp1 is required
maintenance of mitochondrial morphology and of mitochondrial DNA.";
J. Biol. Chem. 278:27781-27788(2003).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           mitochondrial outer membrane.";
Mol. Biol. Cell 14:2342-2356(2003).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        FUNCTION, SUBCELLULAR LOCATION, VARIANT MDM17 LYS-294, MUTAGENESIS OF SER-224, AND IDENTIFICATION OF THE TRANSLATION INITIATION CODON. PubMed=10037792; DOI:10.1083/jcb.144.4.711;
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STRAIN=ATCC 28383 / FL100;
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MEDLINE=96437977; PubMed=8840505;
DOI=10.1002/(SICI)1097-0061(199607)12:9<877::AID-YEA969>3.0.CO;2-S;
Galisson F., Dujon B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PubMed=12808034; DOI=10.1091/mbc.E02-12-0788;
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                                                                                                                                                       precursor by mitochondrial processing peptidase to generate isoform 1. Cleavage of isoform 1 by mitochondrial protease I subsequently yields isoform 2.

MISCELLANEOUS: Deletion of MGM1 causes the mitochondria to fragment and aggregate, and subsequently to lose their mitochondrial DNA and become respiration deficient. The Mdm1 mutation results in temperature dependent loss of function. SIMILARITY: Belongs to the dynamin family.

CAUTION: Ref.1 sequence differs from that shown due to a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FUNCTION: Involved in the maintenance of mitochondrial morphology and plays a role in the inheritance of mitochondria. During mitochondrial fusion, MGM1 coordinates interaction between the inner and outer membranes to promote the formation of the double membrane. Both isoform 1 and isoform 2 are required for full
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SUBUNIT: Associates with the mitochondria outer membrane proteins FZO1 and UGO1 during mitochondrial fusion.
SUBCELLULAR LOCATION: Mitochondrial intermembrane space.
                                                                                                                                                                                                                                                                                                                                                                                                                                                     PTM: Processed in two steps by mitochondrial protesses. T terminal hydrophobic segment is probably cleaved from the
                                                                                                                            frameshift in position 4.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       activity. May also function in the transport of mitochondria along extended cytoskeletal tracks.
                           SWISS-PROT entry is copyright. It is produced through a collaboration sen the Swiss Institute of Bioinformatics and the EMBL outstation -
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on subunits of yeast RNA polymerases
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Job time : 67.0465 secs

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Best Local
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GO; GO:0005758; C:mitochondrial ii
GO; GO:0008053; P:mitochondrial fi
GO; GO:0000002; P:mitochondrial go
GO; GO:0007006; P:mitochondrial m
GO; GO:0000001; P:mitochondrial m
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                                                                                      CONFLICT
CONFLICT
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SEQUENCE
                                                                                                                                   MUTAGEN
MUTAGEN
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MUTAGEN
MUTAGEN
                                                                                                                                                                                                                                                                                                         CHAIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; X62834; CAA44637.1; ALT_FRAME.
EMBL; L07419; -; NOT_ANNOTATED_CDS.
EMBL; Z75119; CAA99426.1; ALT_INIT.
EMBL; Z75120; CAA99426.1; ALT_INIT.
EMBL; Z75120; CAA99428.1; ALT_INIT.
EMBL; X92441; CAA63174.1; ALT_INIT.
EMBL; X92441; CAA63174.1; ALT_INIT.
EMBL; L11274; AAB59316.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          use by non-profit institutions as long modified and this statement is not removed. entitles requires a license agreement (See or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                               Motor protein;
TRANSIT
                                                                                                                                                                                                                                                                                                                                        PROSITE; PS00410; DYNAMIN; 1. Direct protein sequencing; GI Motor protein; Transit peptic
                                                                                                                                                                                                                                                                                                                                                                            SMART; SM00053; DYNC;
                                                                                                                                                                                                                                                                                                                                                                                    Pfam; PF00350; Dynamin
PRINTS; PR00195; DYNAMI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GermOnline; 143799;
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 475
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                                           Similarity
8; Conserv
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KKYFTNCQVST
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M->A: No effect on translation.
K->A: Loss of stability.
S->A: Loss of GTPase activity.
S->N: Loss of GTPase activity.
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R->A: Loss of GTPase activity.
S->T (in Ref. 1).
G-> C (in Ref. 1).
G-> A (in Ref. 2).
                                                                                                                                                                                                                                                                                                                                                    GTP-binding; Hydrolase; Mitochondrion;
                                            Score 47; DB Pred. No. 1.2e 2; Mismatches
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                                                                                                                                                                                                                                                                                                         MGM1
                                                                                                                                                                                                                                                                                  Asp-rich (acidic).
GTP (Potential).
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                                         DB 1;
1.2e+02;
1;
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(See http://www.isb-sib.ch/announce/
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Perfect score:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Database
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re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.
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1: geneseqp1980s:*
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3: geneseqp2000s:*
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125
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ADJ66729
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ADJ66740
ADM30756
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ADA08642
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Adj66729 Human N
Adj66740 Human N
Adm30756 Human O
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Abp30899
Ada08636
Ada08543
Adf08886
                                                                                                                            Abp30978
Ada08641
Adf08984
Abu54859
Abp31025
Ada08747
Adf09090
Aaef2631
Aab12555
Aae12623
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Ada08642
               Adf08979
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4 Human Muc
9 Human Muc
0 Human Muc
0 Human Can
9 Predicted
2 Human O77
5 Secreted
5 Extracell
1 Human O77
7 Secreted
7 Human O77
7 Human O77
7 Human O70
8 Human O70
1 Secreted
1 Human O70
9 Human O70
1 Human O
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monoclonal antibody; epitope; non-shed extracellular portion; shed antigen; human; Mucl; Mucl6; cytostatic; gene therapy; malignancy;

Human Muc1/Muc16 protein-related peptide SeqID17.

06-MAY-2004 ADJ66744;

(first entry)

ADJ66744 standard; peptide;

23 A

45	44	43	42	41	40	39	38	37	36	ω 5	ω 4	33	32	31	30	29	28	27	26
125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125	125 ·	125	125
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
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ABB50283	AAB95836	ADN40451	ADG46095	ADF08808	ADF08974	ADA08465	ADA08631	ABP30896	ABP30968	AAB99203	AAB12552	ADG46172	ADF08885	ADA08542	ABP30898	AAB12554	ADS94303	ADS94302	AAE12634
Abb50283			Adg46095	Adf08808 :	Adf08974				Abp30968	Aab99203		Adg46172				Aab12554	Ads94303	Ads94302	Aae12634
HOST-1 ov	Human pro	Human bre	Human ova	Secreted	Secreted	Human ova	Human 077	0772P pro	Hypotheti	Human ova	Human ova	Human ova	Secreted	Human ova	0772P clo	Human ova	CA 125/07	CA 125/07	Human gen

ALIGNMENTS

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RESULT 1
ADJ66744
ID ADJ66744
ID ADJ66744
ID ADJ66744
AC ADJ6
XX ADJ6
XX ADJ6
XX Mono
KW Mono
KW Morea
XX Morea
XX MO20
XX MO20
XX MO20
XX MO20
XX MO20
XX MO20
XX WO21
PD 15-J
XX MO3-J
PR 03-J
YX WPI;
YX WPI;
YX WPI;
YX WPI;
XX WPI;
XX CLai
XX CC Secon
CC
                                                                                                               This invention relates to a novel isolated monoclonal antibody that specifically binds to an epitope of a non-shed extracellular portion of a shed antigen or of human Mucl or Muclé protein. The invention may be useful for the development of compounds with a cytostatic or for gene therapy. The composition and methods are useful in diagnosing, treating or monitoring malignancies, such as breast or ovarian cancer. The present sequence is that of a peptide which was used for raising antibodies to the extracellular, non-shed region of Muclé and which is claimed in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Payne G,
Vater CA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 14; SEQ ID NO 17; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New antibody to non-shed human Muc1 or Muc16, useful for diagnosing, treating or monitoring malignancies, such as breast or ovarian cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2004-091350/09.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Chittenden T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ovarian cancer.
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Sequence

23 AA

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RESULT 3
ADJ66740
ID ADJ6
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AC ADJ6
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                                                                                                                                                                                                                                                                                                                  Payne G,
Vater CA;
                                                                                                                                                                                   This invention relates to a novel isolated monoclonal antibody that specifically binds to an epitope of a non-shed extracellular portion of shed antigen or of human Mucl or Mucls protein. The invention may be useful for the development of compounds with a cytostatic or for gene therapy. The composition and methods are useful in diagnosing, treating or monitoring malignancies, such as breast or ovarian cancer. The presequence is that of a Muc epitope of the invention.
                                                                                                                                                                                                                                                                       New antibody to non-shed human Muc1 or Muc16, useful for diagnosing, treating or monitoring.malignancies, such as breast or ovarian cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                        shed
                                                                                                                                                                                                                                                         Claim 13;
                                                                                                                                                                                                                                                                                                                                                                              03-JUL-2003; 2003WO-US020907.
                                                                                                                                                                                                                                                                                                                                                                                                                                                  breast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 monoclonal antibody; epitope; non-shed extracellular portion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    06-MAY-2004
     Human Muc16
                     06-MAY-2004
                                                                                                                                                                    Sequence 108
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                                      ADJ66740,
                                                      ADJ66740 standard; protein; 108
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23; Conser
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                                                                                                                                                                                                                                                       SEQ ID NO 2; 113pp; English.
                                                                                                                                                                                                                                                                                                                          Chittenden T,
   GST fusion protein amino acid sequence SeqID13.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   epitope amino acid sequence
                                                                                                                                  100.0%; Score 125; DB 8; larity 100.0%; Pred. No. 1.7e-13; Conservative 0; Mismatches 0;
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                     (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                ovarian cancer.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Payne G,
Vater CA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           monoclonal antibody; epitope;
shed antigen; human; Muc1; Muc
breast cancer; ovarian cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
07-MAR-2002; 2002US-0362527P
                                             07-MAR-2003; 2003WO-US007147
                                                                                                                                                                                                                                 cytostatic;
                                                                                                                                                                                                                                                                                                  Human cancer linked protein referred to as 192292 SeqID 4.
                                                                                                                                                                                                                                                                                                                                                                                               ADM30756;
                                                                                                                                                                                                                                                                                                                                                                                                                                        ADM30756 standard; protein; 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          the exemplification of the invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; SEQ ID NO 13; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New antibody to non-shed human Muc1 or Muc16, treating or monitoring malignancies, such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2004-091350/09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 03-JUL-2002; 2002US-0393094P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              03-JUL-2003; 2003WO-US020907
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            15-JAN-2004.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Homo sapiens
                                                                                           18-SEP-2003.
                                                                                                                                        WO2003075854-A2
                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                    20-MAY-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WO2004005470-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              37
                                                                                                                                                                                                                                   cancer-related gene; screening
atic; immunostimulant; cancer; c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Н
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IMMUNOGEN INC.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  n 100.0%;
Similarity 100.0%;
23; Conservative 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SVPNRHHTGVDSLCNFSPLARRV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               108 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SVPNRHHTGVDSLCNFSPLARRV 59
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Chittenden T,
                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   epitope; non-shed extracellular portion;
Muc1; Muc16; cytostatic; gene therapy; malignancy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Goldmakher V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 125; DB 8;
Pred. No. 1.7e-13;
; Mismatches 0;
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                                                                                                                                                                                                                                      ovarian
                                                                                                                                                                                                                                                         assay;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Chun P,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    as breast
                                                                                                                                                                                                                                      cancer
                                                                                                                                                                                                                                                         immuno-conjugate;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  useful for diagnosing,
breast or ovarian cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 108;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sneider-Mulready K;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
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ABP30979
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This invention relates to a novel method of identifying an agent that modulates the activity of a cancer-related gene. Specifically, it refers to a screening assay to identify potential antitumour agents, as well as methods to assess the cancerous state of a cell. The present invention describes antibodies against the expression products of these cancer-related genes that are capable of targeting a cancerous cell in vivo. Furthermore it provides immuno-conjugates containing such antibodies, which can be used to deliver target therapeutics thereto. Accordingly, these compositions that exhibit cytostatic and immunostimulant activities are useful for preventing or treating cancer in humans and in particular the treatment of ovarian cancer. This polypoptide sequence is a protein encoded by a human cancer-linked gene of the invention.
                                                        Polypeptides comprising an immunogenic portion of an ovarian carcinoma protein or its variants, useful for stimulating an immune response in patient and treating ovarian cancer.
                                                                                                                                                                                                                                                                                                                                                                   17-JUL-2000; 2000US-00617747.
10-AUG-2000; 2000US-00636801.
20-SEP-2000; 2000US-00667857.
04-APR-2001; 2001US-0087271.
18-JUN-2001; 2001US-00884441.
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Example 13; Page 361-362; 408pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        24-JAN-2002
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Predicted extracellular domain of 0772P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ABP30979;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 174 AA;
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                                                                                                                                                                                                                                                                                                                   (CORI-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        immunostimulant; cytostatic; cancer;
                                                                                                                                                                                                                               JL, King GE,
, Vedvick TS,
                                                                                                                                                                                                                                                                                                                CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Similarity
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                                                     treating ovarian cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            protein; 178
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                                                                                                                                                                                                                               Algate
Carter
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                                                                                                                                                                                                                               , 'a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 125; DB 7
Pred. No. 3e-13;
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                                                                                                                                                                                                                               Fling SP, Retter MW,
Hill P, Albone E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ovarian carcinoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7;
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                                                                                                                                                                                                                                                       Fanger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
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                                                                                                                                                                                                                                                          GR.
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RESULT 6
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       The invention relates to an isolated O772P polypeptide, which has the structure fully defined in the specification. The composition containing the polypeptides, polynucleotides, fusion proteins, antibodies, T-cells or antigen presenting cells are useful for stimulating an immune response and treating ovarian cancer. Detecting the presence of the polynucleotides and polypeptides is useful for diagnosing cancer. Ovarian carcinoma cDNAs and protein cDNAs were identified using microarray
                                                                                                                                                                                                      Reed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This invention relates to polypeptides comprising an immunogenic portion of an ovarian carcinoma protein which acts as an immunostimulant and is cytostatic. The polypeptides, polynucleotides, antibodies, fusion proteins, T cell populations and antigen presenting cells that express the polypeptides are useful for stimulating an immune response in a patient and treating ovarian cancer. This sequence represents protein related to the invention
                                                                                                       Disclosure; Page 28; 371pp; English.
                                                                                                                                        New isolated 0772P polypeptides and therapy, particularly for treating c
                                                                                                                                                                                WPI; 2003-532352/50
                                                                                                                                                                                                                  Mitcham
                                                                                                                                                                                                                                                                                                                             (MITC/)
(KING/)
(ALGA/)
(FLIN/)
                                                                                                                                                                                                                                                                                                                                                                                                                 17-JUL-2001; 2001US-00907969
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US2003091580-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                human; gene therapy; ovarian cancer; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 06-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADA08642;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADA08642 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 178 AA;
                                                                                                                                                                                                                                                                                                                                                                                         18-JUN-2001; 2001US-00884441
                                                                                                                                                                                                                                                                               (VEDV/
                                                                                                                                                                                                                                                                                           (REED/
                                                                                                                                                                                                                                           (ALBO/)
                                                                                                                                                                                                                                                                  CART/
                                                                                                                                                                                                                                                                                                       FANG/
                                                                                                                                                                                                                                                                                                                   (RETT/)
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                                                                                                                                                                                                      SG,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        0772P partial protein
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                                                                                                                                                                                                     n JL, King
3, Vedvick
                                                                                                                                                                                                                                         CARTER D.
HILL P.
ALBONE E.
                                                                                                                                                                                                                                                                          KING G E.
ALGATE P A.
FLING S P.
RETTER M W.
FANGER G R.
REED S G.
VEDVICK T S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
                                                                                                                                                                                                                                                                                                                                                                 MITCHAM J L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SVPNRHHTGVDSLCNFSPLARRV 23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                     TS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         100.0%;
                                                                                                                                                                                                      Algate
Carter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 125; DB 5;
Pred. No. 3.1e-13;
                                                                                                                                                                                                      D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
                                                                                                                                                                                                    Fling SP, Rett
Hill P, Albone
                                                                                                                                           d polynucleotides, useful in or diagnosing cancer, e.g. c
                                                                                                                                                                                                      Retter bone E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 178;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                   MW.
                                                                                                                                           e.g. ovarian
                                                                                                                                                                                                                   Fanger GR;
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                The invention describes nucleic acids (I) and the polypeptides (II) they CC encode. The nucleic acids (I) may be used for preventing, diagnosing and treating diseases related to their aberrant expression i.e. breast CC cancers. For example, (I) and (II) may be used to treat disorders cascoiated with decreased expression by rectifying mutations or deletions in a patient's genome that affect the activity of (II) by expressing cC inactive protesins or to supplement the patients own production of (II). (I) and its complementary sequences may also be used as DNA probes in diagnostic cc molementary sequences may also be used as DNA probes in diagnostic cC assays to detect and quantitate the presence of similar nucleic acids in cs. and therefore which patients may be in seed of restorative therapy. The host cell may also be used as antigens in the production of cantibodies against (II) and in assays to identify modulators of (II)'s expression and activity. The anti-(II) antibodies, agonists and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Query Match
Best Local
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10-AUG-2000;
20-SEP-2000;
04-APR-2001;
18-JUN-2001;
                                                                                                                                                                                                                                                          Oncogenic nucleic acids useful for treatment of breast cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             gene therapy; protein therapy; vaccine; antibody inhibition;
breast cancer; restorative therapy; diagnostic agent; immunoassay;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antigen
                                                                                                                                                                                                                                Example 13; SEQ ID NO 489; 399pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   17-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             17-JUL-2002;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Secreted ovarian carcinoma antigen seqid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  12-FEB-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             24-SEP-1999;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    17-DEC-1998;
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                                                                                                                                                                                                                                                                                                                                                     (CORI-)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         23;
                                                                                                                                                                                                                                                                                                                                                     CORIXA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SVPNRHHTGVDSLCNFSPLARRV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SVPNRHHTGVDSLCNFSPLARRV 128
         may
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2000US-00636801.
2000US-00667857.
2001US-00827271.
2001US-00884441.
2001US-00907969.
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                                                                                                                                                                                                                                                                                                                          Retter MW,
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99US-00338933.
99US-00404879.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  carcinoma antigen.
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        ç
                                                                                                                                                                                                                                                                                                                          Fanger
      regulate
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Pred. No. 3.1e-13;
                                                                                                                                                                                                                                                                                                                           GR,
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                                                                                                                                                                                                                                                                       the prevention, diagnosis
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      agonists
activity
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106 _

SVPNRHHTGVDSLCNFSPLARRV 128 SVPNRHHTGVDSLCNFSPLARRV 23 Similarity

Indels

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RESULT 8
ABP30978
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Query Match
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Matches 23
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                                                                                                                                                                                                                                                                        Mitcham ,
Reed SG,
                                                                                  This invention relates to polypeptides comprising an immunogenic portion of an ovarian carcinoma protein which acts as an immunostimulant and is cytostatic. The polypeptides, polynucleotides, antibodies, fusion proteins, T cell populations and antigen presenting cells that express the polypeptides are useful for stimulating an immune response in a patient and treating ovarian cancer. This sequence represents protein
                                                                                                                                                                                             Polypeptides comprising an immunogenic portion of protein or its variants, useful for stimulating patient and treating ovarian cancer.
                                                                                                                                                                                                                                                                                                                                   17-JUL-2000; 2000US-00617747.
10-AUG-2000; 2000US-00636801.
20-SEP-2000; 2000US-00667857.
04-APR-2001; 2001US-0087271.
18-JUN-2001; 2001US-00884441.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           diagnostic agents for detecting the presence of (II) in samples (e.g. immunoassay). This sequence represents a secreted ovarian carcinoma
                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sequence 178
                                                                                                                                                                                                                                                                                                                                                                                                             17-JUL-2001; 2001WO-US022635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Human; immunostimulant; cytostatic; cancer; ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             02-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABP30978;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABP30978 standard; protein; 233
                                                                                                                                                                      Example 13; Page 361; 408pp; English.
                                                                                                                                                                                                                                                 WPI; 2002-164781/21.
                                                                                                                                                                                                                                                                                                                                                                                                                                     24-JAN-2002.
                                                                                                                                                                                                                                                                                                             (CORI-) CORIXA CORP.
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                                                                                                                                                                                                                                                                       JL, King
, Vedvick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                         to the invention
                                                 233 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SVPNRHHTGVDSLCNFSPLARRV 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SVPNRHHTGVDSLCNFSPLARRV 23
100.0%; Score 125; DB 5; ilarity 100.0%; Pred. No. 4.2e-13; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     transmembranal regions of 0772P
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                                                                                                                                                                                                                                                                        Algate
Carter
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 125; DB 7;
Pred. No. 3.1e-13;
                                                                                                                                                                                                                                                                        PΑ,
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Hill P,
                                                                                                                                                                                                                                                                        SP, Retter
, Albone E;
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                       Length
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                                                                                                                                                                                                                        ovarian carcinoma
                                                                                                                                                                                                             response
                                                                                                                                                                                                                                                                                     Fanger GR;
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RESULT 10
ADF08984
ID ADF08
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AC ADF08
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AC ADF08
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DT 12-FE
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                                                                                                      Best Local
                                                                                                             Query Match
                                                                                                                                                                                                                                                                             Mitcham Reed SG,
                                                                                                                                                       The invention relates to an isolated 0772P polypeptide, which has the structure fully defined in the specification. The composition containing the polypeptides, polynucleotides, fusion proteins, antibodies, T-cells or antigen presenting cells are useful for stimulating an immune response and treating ovarian cancer. Detecting the presence of the polynucleotides and polypeptides is useful for diagnosing cancer. Ovarian carcinoma cDNAs and protein cDNAs were identified using microarray
                                                                                                                                                                                                                                       New isolated 0772P polypeptides and polynucleotides, useful in gene therapy, particularly for treating or diagnosing cancer, e.g. ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  human; gene therapy; ovarian cancer; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human 0772P partial protein #11
 12-FEB-2004
               ADF08984;
                             ADF08984 standard;
                                                                                                                            Sequence 233 AA;
                                                                                                                                                                                                                  Example 13; Page 28; 371pp; English
                                                                                                                                                                                                                                                               WPI; 2003-532352/50.
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                                                                                                                                                                                                                                                                                                                                                                                                                        15-MAY-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADA08641 standard; protein;
                                                                                                                                                technology. The present sequence represents a human ovarian carcinoma
                                                                                                                                                                                                                                                                                                                                (REED/)
                                                                                                                                                                                                                                                                                                                                                             (KING/)
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                                                                                                                                                                                                                                                                                                                   (CART/)
                                                                                                                                                                                                                                                                                                                                              (RETT/)
                                                                                                                                                                                                                                                                                                                          VEDV/
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                                                                                                                                                                                                                                                                                                                                                      FLIN/)
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                                                                                                                                                                                                                                                                             JL, King
, Vedvick
                                                                                                                                                                                                                                                                                                  CARTER D.
HILL P.
ALBONE E.
                                                                                                                                                                                                                                                                                                                         RETTER M W.
FANGER G R.
REED S G.
VEDVICK T S.
                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                            KING G E.
ALGATE P A.
                                                                                                                                                                                                                                                                                                                                                     FLING S P.
                                                                                                                                                                                                                                                                                                                                                                           MITCHAM J L.
                                                                          SVPNRHHTGVDSLCNFSPLARRV 23
                                                                                               Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                (first entry)
 (first entry)
                                                                                                                                                                                                                                                                             TS,
                             peptide; 233
                                                                                                      100.0%;
                                                                                                                                                                                                                                                                             Algate
Carter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              233
                                                                                              ٥,
                                                                                                     Score 125; DB 7;
Pred. No. 4.2e-13;
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                                                                                              Mismatches
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lbone E;
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                                                                                                            Length 233;
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                                                                                                                                                                                                                                                                                    Fanger
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                                                                                              Gaps
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                     RESULT 11
ABU54859
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ABU54859;

ABU54859 standard; protein; 284

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CC cancers. For example, (I) and (II) may be used to treat disorders associated with decreased expression by rectifying mutations or deletions cin a patient's genome that affect the activity of (II) by expressing cc inactive proteins or to supplement the patients own production of (II). Additionally, (I) may be used to produce (II), by inserting (I) into a cc host cell and culturing the cell to express the protein (II). (I) And its ccomplementary sequences may also be used as DNA probes in diagnostic cc assays to detect and quantitate the presence of similar nucleic acids in cc samples, and therefore which patients may be in need of restorative cc therapy. The host cell may also be used as antigens in the production of captression and activity. The anti-(II) antibodies, agonists and cartivity and as cc antiponists may be used to regulate expression and activity and as cc diagnostic agents for detecting the presence of (II) in samples (e.g. by immunoassay). This sequence represents a secreted ovarian carcinoma
                                                                                                      Matches
                                                                                                                            Query Match
Best Local (
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10-AUG-2000;
20-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The invention describes nucleic acids (I) and the polypeptides (II) they encode. The nucleic acids (I) may be used for preventing, diagnosing and treating diseases related to their aberrant expression i.e. breast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   gene therapy; protein therapy; vaccine; antibody inhibition; breast cancer; restorative therapy; diagnostic agent; immuno secreted ovarian carcinoma antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Oncogenic nucleic acids useful treatment of breast cancer.
                                                                                                                                                                                                              Sequence 233
                                                                                                                                                                                                                                                                antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 13; SEQ ID NO 488; 399pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-897152/82
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      23-JUN-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-JUL-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 03-JUL-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-DEC-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         18-JUN-2001;
106
                                                                                                   23;
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                                                                                                                                 Similarity
                           SVPNRHHTGVDSLCNFSPLARRV
SVPNRHHTGVDSLCNFSPLARRV 128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           98US-00216003.
99US-00338933.
99US-00404879.
2000US-00617747.
2000US-00636801.
2000US-00636801.
2000US-00637277.
2001US-00887277.
2001US-00884441.
2001US-00907969.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Retter MW,
                                                                                                   100.0%; ilarity 100.0%; Conservative 0
                                                                                                                                                                                                              AA;
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                                                                                                      <u>,,</u>
                                                                                                   Score 125; DB 7;
Pred. No. 4.2e-13;
0; Mismatches 0;
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                                                 23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hill
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                                                                                                                                                       Length
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12-MAR-2003

(first entry)

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                                           S
                                                                                                                                                                        The invention relates to a CA125 protein comprising: (a) an extracellular comminoterminal domain; (b) an amino terminal extension; (c) a multiple crepeat domain; and (d) a carboxy terminal domain. The extracellular amino terminal domain comprises 5 genomic exons, the amino terminal extension comprises 4 genomic exons, each repeat unit comprises 5 genomic exons and the carboxy terminal domain comprises a transmembrane anchor with a short cytoplasmic domain, and further comprises 9 genomic exons. The gene for cytoplasmic domain, and further comprises 9 genomic exons. The gene for cytoplasmic domain, mucleic acids (including variants, homologues and CC CA125 is located on human chromosome 19q 13.2. Also included are isolated CA125 repeat domains, nucleic acids (including variants, homologues and CC entrol of expressing CA125 antigen in a cell, the amino acid sequences of the CA125 repeat units (or their variants, fragments or sequences of the CA125 repeat units (or their variants, fragments or sequences of ceptope in the receptor-binding domain of CA125 protein, a diagnostic for detecting and monitoring the presence of CA125 antigen (comprising comprising the presence of CA125 antigen (comprising a comprising sites) and an antisense oligonucleotide that inhibits the captes of CA125 antigen levels or at risk of developing a compression of CA125 antigen levels or at risk of developing a compression of CA125 antigen levels or at risk of developing a compression of CA125 antigen levels or at risk of developing a compression of CA125 antigen levels or at risk of developing a compression of CA125 antigen levels or at risk of developing a compression of CA125 antigen levels or at risk of developing a compression of CA125 antigen levels or at risk of developing a compression of CA125 antigen levels or at risk of developing a compression of CA125 antigen levels or at a compression of CA125 ant
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                                                                                        Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           17-APR-2001; 2001US-0284175P
19-JUN-2001; 2001US-0299380P
27-SEP-2001; 2001US-00965738
21-DEC-2001; 2001US-0345180P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human; CA125; protein repeat; chromosome 19q 13.2; amino terminal domain; amino terminal extension; carboxy terminal domain; vaccine; cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             O'brien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
                                                                                                                                                                        Sequence 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 1; Fig 9b; 694pp; English
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                                                                                                           Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              against cancer
                                               SVPNRHHTGVDSLCNFSPLARRV 23
        SVPNRHHTGVDSLCNFSPLARRV 179
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Beard J,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  carboxy
                                                                                                                                                                        AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2002WO-US011734.
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                                                                                                         100.0%;
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                                                                                        0; Mismatches
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                                                                                                         Score 125; DB 6;
Pred. No. 5.3e-13;
                                                                                                                               Length 284;
                                                                                        Indels
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RESULT 13
ADA08747
ID ADA08
XX ADA08
XC ADA08
XC
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ABP31025
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Reed SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This invention relates to polypeptides comprising an immunogenic portion of an ovarian carcinoma protein which acts as an immunostimulant and is cytostatic. The polypeptides, polynichlacts as an immunostimulant and is proteins, T cell populations and antigen presenting cells that express the polypeptides are useful for stimulating an immune response in a patient and treating ovarian cancer. This sequence represents protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-JUL-2000; 2000US-00617747.
10-AUG-2000; 2000US-00636801.
20-SEP-2000; 2000US-00667857.
04-APR-2001; 2001US-00827271.
18-JUN-2001; 2001US-00884441.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein or its varial patient and treating
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ABP31025 standard; protein;
                                                     human;
                                                                                                                                                          06-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 318 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Polypeptides comprising an immunogenic portion of an ovarian carcinoma protein or its variants, useful for stimulating an immune response in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-JUL-2001; 2001WO-US022635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; immunostimulant; cytostatic; cancer; ovarian carcinoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Amino acid sequence of the 3'
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          02-JUL-2002
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                                                                                                                                                                                                                                                             ADA08747 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 3; Page 399-400; 408pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2002-164781/21.
                                                                                                       Human 0772P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-JAN-2002.
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                                                                                                                                                                                                                                                                                                                                                                                          191
                                                                                                                                                                                                                                                                                                                                                                                                                                          س
                                                  gene therapy; ovarian cancer; cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             JL, King GE,
, Vedvick TS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  to the invention
                                                                                                                                                                                                                                                                                                                                                                                                                     SVPNRHHTGVDSLCNFSPLARRV 23
                                                                                                                                                                                                                                                                                                                                                                                          SVPNRHHTGVDSLCNFSPLARRV 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          100.0%; ilarity 100.0%; Conservative 0
                                                                                                     constant region consensus sequence
                                                                                                                                                          (first entry)
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                                                                                                                                                                                                                                                          protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ovarian
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Carter D,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Score 125;
Pred. No. 6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       constant region of 0772P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     6e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SP,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Albone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Retter
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Length 318;
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                                                                                                                                                                                                                RESULT 14
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Best Local
                                                                                                                                                                                                                                                                                            Matches
                                                                                     gene therapy; protein therapy; vaccine; antibody inhibition; breast cancer; restorative therapy; diagnostic agent; immuno
                                                                                                                       Secreted ovarian
                                                                                                                                                                                                                                                                                                                                                                      the polypeptides, polynucleotides, fusion proteins, antibodies, T-cells or antigen presenting cells are useful for stimulating an immune response treating ovarian cancer. Detecting the presence of the polynucleotides and polypeptides is useful for diagnosing cancer. Ovarian carcinoma cDNAs and protein cDNAs were identified using microarray technology. The present sequence represents a human ovarian carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New isolated 0772P polypeptides and polynucleotides, useful in gene therapy, particularly for treating or diagnosing cancer, e.g. ovari
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Reed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Mitcham
                                 US2003124140-A1
                                                                                                                                             12-FEB-2004
                                                                                                                                                                   ADF09090
                                                                                                                                                                                          ADF09090 standard;
                                                                                                                                                                                                                                                                                                                                        Sequence 318
                                                                                                                                                                                                                                                                                                                                                                                                                                       The invention relates to an isolated 0772P polypeptide, which has the structure fully defined in the specification. The composition containing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2003-532352/50
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(KING/)
(ALGA/)
(FLIN/)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (RETT/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (ALBO/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CART/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (/VEDV/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                REED/)
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                                                                                                                                                                                                                                                 191
                                                                                                                                                                                                                                                                      μ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             RETTER M W.
FANGER G R.
REED S G.
VEDVICK T S.
CARTER D.
HILL P.
                                                                                                                                                                                                                                                                                            23;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KING G E.
ALGATE P A.
FLING S P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 JL, King GE,
, Vedvick TS,
                                                                                                                                                                                                                                                                                                      Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ALBONE E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MITCHAM J L.
                                                                             ovarian
                                                                                                                                                                                                                                                           SVPNRHHTGVDSLCNFSPLARRV 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQ ID NO 594; 371pp; English.
                                                                                                                                                                                                                                               SVPNRHHTGVDSLCNFSPLARRV 213
                                                                                                                                                                                                                                                                                           100.0%; ilarity 100.0%; Conservative 0
                                                                                                                                                                                                                                                                                                                                        A,
                                                                                                                                             (first
                                                                                                                       carcinoma
                                                                                                                                                                                        protein;
                                                                                                                                             entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Algate PA,
Carter D,
                                                                                                                       antigen seqid 594.
                                                                                                                                                                                           318
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                                                                                                                                                                                                                                                                                                    Score 125;
Pred. No. (
                                                                                                                                                                                          B
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Hill P, Albone
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                                                                                                                                                                                                                                                                                                                Length 318;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fanger
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          g. ovarian
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gene 1 encoded secreted protein fragment,

SEQ ID

NO: 27. (first entry)

AAE12631

standard; protein; 367

0;

Human; ovarian cancer antigen; proliferative disorder; cancer; tumour; respiratory system disorder; asthma; haematopoietic disorder; skin aging; immune system disorder; AIDS; skin disorder; autoimmune disease; allergy; rheumatoid arthritis; inflammation; neurological disorder; septic shock; Alzheimer's disease; Parkinson's disease; diabetes; angiogenic disorder; atherosclerosis; cardiovascular disorder; gastrointestinal disorder; epithelial cell proliferation; transplantation; chemotaxis; infection;

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                                                                                                                                     The invention describes nucleic acids (I) and the polypeptides (II) they commode. The nucleic acids (I) may be used for preventing, diagnosing and CC treating diseases related to their abbarrant expression i.e. breast cancers. For example, (I) and (II) may be used to treat disorders cancers. For example, (I) and (II) may be used to treat disorders consociated with decreased expression by rectifying mutations or deletions in a patient's genome that affect the activity of (II) by expressing consociated proteins or to supplement the patients own production of (II). Additionally, (I) may be used to produce (II), by inserting (I) into a complementary sequences may also be used as DNA probes in diagnostic complementary sequences may also be used as DNA probes in diagnostic cassays to detect and quantitate the presence of similar nucleic acids in complex, and therefore which patients may be in need of restorative consplex, and therefore which patients may be in need of restorative contexpy. The host cell may also be used as antigens in the production of contexpy. The host cell may also be used as antigens in the production of contexposition and activity. The anti-(II) antibodies, agonists and contexposition and activity. The anti-(II) antibodies, agonists and contexposition in samples (e.g. by immunoassay). This sequence represents a secreted ovarian carrinoma.
                                                                   Matches
                                                                                                   Query Match
                                                                                                                                   Sequence
                                                                                                                                                                                     immunoassay).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 16; SEQ ID NO 594; 399pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Oncogenic nucleic acids useful treatment of breast cancer.
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24-SEP-1999;
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                                                                                   Local
 191
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                                ب
                                                                   23;
                                                                                  Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADF09064
                                                                                                                                     318
SVPNRHHTGVDSLCNFSPLARRV 213
                              SVPNRHHTGVDSLCNFSPLARRV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         98US-00215681

98US-00216003

99US-00338933

99US-0034879

2000US-00617747

2000US-00636801

2000US-00667857

2001US-00884441

2001US-00884441

2001US-0088449
                                                                   Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Retter MW,
                                                                                                                                     AA,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      2002US-00198053
                                                                                                                                                                                       This sequence represents a secreted ovarian carcinoma
                                                                                  100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fanger
                                                                   0
                                                                                  Score 125; DB 7
Pred. No. 6e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GR,
                                                                   Mismatches
                                 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      the prevention, diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Hill P;
                                                                                                  7;
                                                                   °,
                                                                                                   Length 318;
                                                                   Gaps
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Search completed: October 27, Job time: 80.5907 secs
                                                                                                                                                                                                                                                                                                    CC AAD20618-AAD20624 represent cDNAs corresponding to 7 human ovarian and CC ovarian cancer associated protein (collectively known as ovarian cancer CC antigens) genes, and AAB2623-AAB2623-CAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-AAB2630-A
                                                                                                                                                                                                 Query Match
Best Local S
Matches 23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Nucleic acids encoding 7 ovarian cancer antigen polypeptides, useful for preventing, diagnosing and/or treating ovarian cancer and ovarian cancer metastases.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          food additive; wound healing; endocrine disorder; kidney disorder;
gene therapy; cytostatic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure; Page 9; 427pp; English.
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23-AUG-2000; 2000US-0227009P.
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                                                                                                                                                                                                                                                                                               Sequence 367
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens.
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                                                                                                23; Conservative
                                                                                                                                                                                                                           Similarity
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Result
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Maximum
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Maximum Match 100%
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Perfect score:
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   Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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2: /cgn2_6/ptodata/1/iaa/5B_COMB.pep:*

3: /cgn2_6/ptodata/1/iaa/6A_COMB.pep:*

4: /cgn2_6/ptodata/1/iaa/FCTUS_COMB.pep:*

5: /cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

6: /cgn2_6/ptodata/1/iaa/backfiles1.pep:*
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US-09-252-991A-19470
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389, App
389, App
312, App
312, App
312, App
112, App
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Sequence

Patent No. 6699664

GENERAL INCORMATION:
APPLICANT: King, Gordon E.
APPLICANT: King, Gordon E.
APPLICANT: King, Gordon E.
APPLICANT: Rigate, Paul A.
APPLICANT: Fling, Steven P.
APPLICANT: Retter, Marc W.
APPLICANT: Reade, Steven G.
APPLICANT: Vedvick, Thomas S.
APPLICANT: Vedvick, Thomas S.
APPLICANT: Ozater, Darrick
APPLICANT: Ozater, Darrick
FILE AFFERENCE: 2010121.46205

CURRENT APPLICATION NUMBER: US/09/667,857

CURRENT FILING DATE: 2000-09-20

NUMBER OF SECONDARY APPLICATION STENDER: US/09/667,857

THERAPY AND

US-09-667-857-390

390, Application US/09667857 o. 6699664

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ALIGNMENTS

GENERAL INFORMATION: APPLICANT: Mitcham, Jennifer L. APPLICANT: King, Gordon E. APPLICANT: Algate, Paul A. APPLICANT: Algate, Paul A. ITITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER FILE REFERENCE: 210121.452C2 CURRENT APPLICATION NUMBER: US/09/404,879A CURRENT FILING DATE: 1999-09-24 NUMBER OF SEQ ID NOS: 393 SOPTWARE: FastSEQ for Windows Version 3.0 SEQ ID NO 390 LENGTH: 438 ; TYPE: PRT ; ORGANISM: Homo US-09-404-879A-390 RESULT 1 US-09-404-879A-390 Query Match Best Local S Matches 23 Sequence 390, Application US/09404879A Patent No. 6468546 l Similarity 23; Conserv 100.0%; Score 125; DB 4; ilarity 100.0%; Pred. No. 6.6e-12; Conservative 0; Mismatches 0; sapiens Length 438; 0, Gaps

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APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon E.
APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
APPLICANT: Fling, Steven P.
APPLICANT: Fanger, Gary Richard
APPLICANT: Redter, Marc W.
APPLICANT: Reed, Steven G.
APPLICANT: Vedvick, Thomas S.
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REPERENCE: 210121.462C5
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; Sequence 389, Application US/09404879A
; Patent No. 6468546
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US-09-667-857-389
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; ORGANISM: Homo sapiens
US-09-404-879A-389
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; ORGANISM: Homo sapiens
US-09-667-857-389
                                   CURRENT APPLICATION NUMBER: US/09/667,857
CURRENT FILING DATE: 2000-09-20
NUMBER OF SEQ ID NOS: 455
SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 389
LENGTH: 833
TYPE: PRT
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SEQ ID NO 390
LENGTH: 438
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APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121,462C2
CURRENT APPLICATION NUMBER: US/09/404,879A
CURRENT FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 393
SOFTWARE: FastSEQ for Windows Version 3.0
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GENERAL INFORMATION:

APPLICANT: Mitcham, Jennifer Lynn

APPLICANT: King, Gordon E.

ITILE OF INVENTION: COMPOSITIONS AND METHODS FOR THERAPY OF

TITLE OF INVENTION: OVARIAN CANCER

FILE REFERENCE: 210121.462C1

CURRENT APPLICATION NUMBER: US/09/338,933

CURRENT FILING DATE: 1999-06-23

NUMBER OF SEQ ID NOS: 312

SOFTWARE: FRASTSEQ for Windows Version 3.0

SEQ ID NO 312

SEQ ID NO 312

LENGTH: 914
               US-09-667-857-312
US-09-667-857-312
; Sequence 312, Application US/09667857
; Patent No. 6699664
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ; TYPE: PRT; ORGANISM: Homo sapien US-09-404-879A-312
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; TYPE: PRT
; ORGANISM: Homo sapien
US-09-338-933-312
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CURRENT FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 393
SOFTWARE: FASTSBQ for Windows Version 3.0
SEQ ID NO 312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Dequence 312, Application US/09404879A Patent No. 6468546 GENERAL INFORMATION:
GENERAL INFORMATION:
                                                                                                                                                                                                                     Query Match
Best Local Similarity
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Best Local
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APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           LENGTH:
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APPLICANT: Reed, Steven G.

APPLICANT: Vedvick, Thomas S.

APPLICANT: Carter, Darrick

ITITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND

ITITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER

FILE REFERENCE: 210121.462C5

CURRENT APPLICATION NUMBER: US/09/667,857

CURRENT FILING DATE: 2000-09-20

NUMBER OF SEQ ID NOS: 455

SOFTWARE: FastSEQ for Windows Version 3.0

SEQ ID NO 312

LENGTH: 914

TYPE: PRT

ORGANISM: Homo sapien
                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Baker, Adam
APPLICANT: Cotten, Matthew
APPLICANT: Chiocca, Susanna
APPLICANT: Chiocca, Susanna
APPLICANT: Schaffner, Gotthold
TITLE OF INVENTION: Chicken Embryo Lethal Orphan (CELO) Virus
FILE REFERENCE: 0652.1800000
CURRENT APPLICATION NUMBER: US/09/171,461
CURRENT APPLICATION NUMBER: PCT/EP97/01944
EARLIER APPLICATION NUMBER: PCT/EP97/01944
EARLIER FILING DATE: 1997-04-18
NUMBER OF SEQ ID NOS: 54
SOFTWARE: PatentIn Ver. 2.0
SEQ ID NO 12
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                                                                                          US-09-970-711-12
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US-09-171-461-12
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                                                                                                           RESULT 9
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 Sequence 12, Application US/09970711
Patent No. 6773709
GENERAL INFORMATION:
APPLICANT: Baker, Adam
APPLICANT: Cotten, Matthew
                                                                                                                                                                                                                                                  Query Match
Best Local (
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TYPE: PRT
                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: Position: 18289..21117 /gene: L3 /product: L3 hexon
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23; Conserv
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Cotten, Matthew
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Fling, Steven
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Fanger, Gary Richard
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RESULT 11 US-10-157-457A-9

Sequence 9, Application US/10157457A Patent No. 6800610 GENERAL INFORMATION:

APPLICANT: Williams, J APPLICANT: McDonald, APPLICANT: McKenna, M

McKenna, Margaret A.

, John P. 1, Jay M.

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PRIOR APPLICATION NUMBER: 09/171,461
PRIOR FILING DATE: 1999-01-12
PRIOR PPLICATION NUMBER: PCT/EP97/01944
PRIOR PILING DATE: 1997-04-18
NUMBER OF SEQ ID NOS: 54
SOFTWARE: PATENTIN Ver. 2.0
SEQ ID NO 12
LENGTH: 942
TYPE: PRT
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PRIOR FILING DATE: 2000-06-19
NUMBER OF SEQ ID NOS: 11
SEQ ID NO 9
SEQ ID NO 9
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GENERAL INFORMATION:
                                                                                      Query Match
Best Local
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TITLE OF INVENTION: Osteoclast Secreted Chemokine and Uses Thereof
FILE REFERENCE: D6294
CURRENT APPLICATION NUMBER: US/09/884,570
CURRENT FILING DATE: 2001-06-19
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APPLICANT:
APPLICANT:
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                                                                                                                                                           FEATURE:
LOCATION: 38..165
OTHER INFORMATION: amino acid sequence of region of Lect2
OTHER INFORMATION: protein homologous to repeat sequences of N
OTHER INFORMATION: and C terminal ends of the mim-1 protein
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RHHPGVDVLCSDGSVVYAPFTGKI 36
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Pred. No. 1.8;
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US-09-252-991A-18747
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; OTHER INFORMATION: full length amino acid sequence of mim-1 protein
US-10-157-457A-12
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GENERAL INFORMATION:

APPLICANT: Marc J. Rubenfield et al.

TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS FILE REFERENCE: 107196.136

CURRENT APPLICATION NUMBER: US/09/252,991A

CURRENT FILING DATE: 1999-02-18

PRIOR APPLICATION NUMBER: US 60/074,788

PRIOR APPLICATION NUMBER: US 60/094,190
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SEQ ID NO 12
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Patent No. 680061
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/157,457A
CURRENT FILING DATE: 2002-05-29
PRIOR APPLICATION NUMBER: US 09/884,570
PRIOR FILING DATE: 2001-06-19
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APPLICANT: McDonald, Jay M.
APPLICANT: McKenna, Margaret A.
TITLE OF INVENTION: Osteoclast Secreted Chemokine and Uses Thereof
FILE REFERENCE: D6294CIP
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IOCATION: 38..165
OTHER INFORMATION: amino acid sequence of region of Lect2
OTHER INFORMATION: protein homologous to repeat sequences of N
OTHER INFORMATION: and C terminal ends of the mim-1 protein
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TYPE: PRT
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ilarity 37.5%;
Conservative
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Pred. No. 1
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Pred. No. 1.8;
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FILE REFERENCE: 107196.136
CURRENT APPLICATION NUMBER: US/09/252,991A
CURRENT FILING DATE: 1999-02-18
PRIOR APPLICATION NUMBER: US 60/074,788
PRIOR FILING DATE: 1998-02-18
PRIOR APPLICATION NUMBER: US 60/094,190
PRIOR TILING DATE: 1998-07-27
NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 19470
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; ORGANISM: Pseudomonas aeruginosa
US-09-252-991A-19470
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; ORGANISM: Zea mays
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                                                                                                                                                                                                                                                                            APPLICANT: Durfee, Tim
APPLICANT: Feiler, Heldi
APPLICANT: Gruissem, Wilhelm
APPLICANT: Jenkins, Susan
APPLICANT: Roe, Judith
APPLICANT: Zambryski, Patricia
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NUMBER OF SEQ ID NOS: 33142
SEQ ID NO 18747
LENGTH: 230
                                                                            NUMBER OF SEQ ID NOS: 9
SOFTWARE: PatentIn vers
SEQ ID NO 6
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Best Local Similarity
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Best Local Similarity 45.0%;
Matches 9; Conservative
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                                                                                                                                                                       APPLICANT: Roe, Judith
APPLICANT: Zambryski, Patricia
TITLE OF INVENTION: Alteration of Plant Meristem Function by Manipulation of the
TITLE OF INVENTION: Retinoblastoma-Like Plant RRB Gene
FILE REFERENCE: 9-2991
CURRENT APPLICATION NUMBER: US/09/527,084A
CURRENT FILING DATE: 2000-03-16
                                                                                                                       PRIOR APPLICATION NUMBER: US 60/125,229
PRIOR FILING DATE: 1999-03-16
NUMBER OF OTTO
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TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO
TITLE OF INVENTION: AERUGINOSA FOR DIAGNOSTICS AND THERAPEUTICS
                                       TYPE: PRT
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Pred. No. 58;
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Pred. No. 12;
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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seq length: 2000000000
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1: /cgn2_6/ptodata/2/pubpaa/US07 PUBCOMB.pep:*

2: /cgn2_6/ptodata/2/pubpaa/US06 NEW PUB.pep:*

3: /cgn2_6/ptodata/2/pubpaa/US06 NEW PUB.pep:*

4: /cgn2_6/ptodata/2/pubpaa/US06_PUBCOMB.pep:*

5: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

6: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

7: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

8: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

9: /cgn2_6/ptodata/2/pubpaa/US09E_PUBCOMB.pep:*

10: /cgn2_6/ptodata/2/pubpaa/US09E_PUBCOMB.pep:*

11: /cgn2_6/ptodata/2/pubpaa/US09E_PUBCOMB.pep:*

13: /cgn2_6/ptodata/2/pubpaa/US09E_PUBCOMB.pep:*

14: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*

15: /cgn2_6/ptodata/2/pubpaa/US10E_PUBCOMB.pep:*

16: /cgn2_6/ptodata/2/pubpaa/US10E_PUBCOMB.pep:*

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18: /cgn2_6/ptodata/2/pubpaa/US10E_PUBCOMB.pep:*

19: /cgn2_6/ptodata/2/pubpaa/US10E_PUBCOMB.pep:*

19: /cgn2_6/ptodata/2/pubpaa/US11A_PUBCOMB.pep:*

20: /cgn2_6/ptodata/2/pubpaa/US11A_PUBCOMB.pep:*

21: /cgn2_6/ptodata/2/pubpaa/US11A_PUBCOMB.pep:*

22: /cgn2_6/ptodata/2/pubpaa/US10E_PUB.pep:*

23: /cgn2_6/ptodata/2/pubpaa/US10E_PUB.pep:*

24: /cgn2_6/ptodata/2/pubpaa/US10E_PUB.pep:*

25: /cgn2_6/ptodata/2/pubpaa/US10E_PUB.pep:*
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130.638 Million cell updates/sec
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15 US-10-612-090-2
15 US-10-612-090-13
15 US-10-612-090-13
15 US-10-383-368-4
10 US-09-984-441-489
10 US-09-997-969-489
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Sequence 17, Appli
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Sequence 4, Appli
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ALIGNMENTS

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US-09-907-969-312	09-884-441-478	441-	-68		790-38	-10-198-053	-09-827-271-38	-09-907-969-38	09-884-4	35	-10-687-035	-10-142-	-10-243-	-10-333-900-	US-10-858-412-226	US-09-965-738-148	-10-860-7	US-10-860-790-390	-10-333-90	-10-198-053-4	-10-198-053-3	-09-827-271-39	-09-907-969-4	US-09-907-969-390	US-09-884-441-483	84-441-	US-10-858-412-225	-10-333-	-10-860-790-5	-10-	9-907-969-	-09-965-738-3	US-10-860-790-488
e 312,	4	312,	206,	206, 7	e 389,	Sequence 389, App	e 389,	389,	u	2	_	4	4.	e 30,	e 220	148	e 483		19	48	39	e 390	æ	e 390	483,	390,	e 225	e 27,	e 594,	Sequence 594, App	e 594,	e 300,	Sequence 488, App

; TYPE: PRT; ORGANISM: Homo sapiens US-10-612-090-17 US-10-612-090-17 Sequence 17, Application US/10612090 Publication No. US20040057952A1 GENERAL INFORMATION: SOFTWARE: PatentIn version 3.2 SEQ ID NO 17 LENGTH: 23 Query Match Best Local Similarity Matches 23; Conserv APPLICANT: ImmunoGen, Inc. TITLE OF INVENTION: ANTIBODIES TO NON-SHED MUC1 AND MUC16, AND USES THEREOF FILE REFERENCE: A8340 CURRENT APPLICATION NUMBER: US/10/612,090 CURRENT FILING DATE: 2003-07-03 PRIOR APPLICATION NUMBER: US 60/393,094 PRIOR APPLICATION NUMBER: US 60/393,094 PRIOR FILING DATE: 2002-07-03 NUMBER OF SEQ ID NOS: 33 1 SVPNRHHTGVDSLCNFSPLARRV 23 1 SVPNRHHTGVDSLCNFSPLARRV 23 100.0%; Score 125; DB 15; ilarity 100.0%; Pred. No. 4.3e-12; Conservative 0; Mismatches 0; Indels Length 23; <u>.</u> Gaps 0

RESULT 2 US-10-612-090-2 ; Sequence 2, Application US/10612090 ; Publication No. US20040057952A1 ; GENERAL INFORMATION:

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US-10-612-090-13; Sequence 13, Application US/10612090; Publication No. US20040057952A1; GENERAL INFORMATION:
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US-10-383-368-4
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                                                                                                                                                                                 Sequence 4, Application US/10383368 Publication No. US20040002091A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/612,090
CURRENT FILING DATE: 2003-07-03
PRIOR APPLICATION NUMBER: US 60/393,094
PRIOR FILING DATE: 2002-07-03
NUMBER OF SEQ ID NOS: 33
SOFTWARE: Patentin version 3.2
SEQ ID NO 13
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Best Local
APPLICANT: Young, Paul E.
APPLICANT: Bibner, Reinhard
APPLICANT: Browel, Jeffrey W.
TITLE OF INVENTION: Cancer-Linked Gene as Target
FILE REFERENCE: 689290-123
CURRENT APPLICATION NUMBER: US/10/383,368
CURRENT FILING DATE: 2003-03-07
PRIOR APPLICATION NUMBER: US 60/362,527
PRIOR APPLICATION NUMBER: US 60/362,527
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICANT: ImmunoGen, Inc.
TITLE OF INVENTION: ANTIBODIES TO NON-SHED
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TITLE OF INVENTION: ANTIBODIES TO NON-SHED MUC1 AND MUC16, AND USES THEREOF
FILE REFERENCE: A8340
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NAME/KEY: MISC_FEATURE
LOCATION: (1)..(1)
OTHER INFORMATION: Glutathione S-transferase fusion
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ORGANISM: Artificial Sequence
FEATURE:
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100.0%; Pred. No. 2.2e-11;
tive 0; Mismatches 0;
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RESULT 5
US-09-884-441-489
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                                                 FILE REFERENCE: 210121.462C8
CURRENT APPLICATION NUMBER: US/09/907,969
CURRENT FILING DATE: 2001-07-17
NUMBER OF SEQ ID NOS: 596
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 489
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 4
LENGTH: 174
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APPLICANT: Mitcham, Jennifer L.
                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 489, Application US/09907969 Publication No. US20030091580A1
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Best Local Similarity
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APPLICANT:
APPLICANT:
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TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C7
CURRENT APPLICATION NUMBER: US/09/884,441
CURRENT FILING DATE: 2001-06-18
                                                                                                                                                          APPLICANT: Albone, Earl
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
                                                                                                                                                                                                                                                                                     APPLICANT:
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SOFTWARE: FastSEQ for Windows Version 3.0
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                                                                                                                                                                                                                                                                   APPLICANT:
TYPE: PRT
ORGANISM: Homo
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                                 ENGTH: 178
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Algate, Paul A.
Fling, Steven P
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Carter, Darrick
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Fanger, Gary Richard
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APPLICANT: Bangur, Chaitanya S.

APPLICANT: Retter, Marc W.

APPLICANT: Hanger, Gary R.

APPLICANT: Hill, Paul

TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY

TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER

FILE REFERENCE: 210121.462C9

CURRENT APPLICATION NUMBER: US/10/198,053

CURRENT APPLICATION NUMBER: US/20/198,053

CURRENT FILING DATE: 2002-07-17

NUMBER OF SEQ ID NOS: 624

SOFTWARE: FastSEQ for Windows Version 4.0

SEQ ID NO 489

LENGTH: 178

TYPE: PRT
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US-10-198-053-489
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                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/10/860,790
CURRENT FILING DATE: 2004-06-02
NUMBER OF SEQ ID NOS: 624
SOPTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 489
LENGTH: 178
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence 489, Application US/10860790 Publication No. US20050031634A1 GENERAL INFORMATION:
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Publication No. US20030124140A1
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Best Local S
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER FILE REFERENCE: 210121.462C11
                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Bangur, Chaitanya S.
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
APPLICANT: Hill, Paul
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                                           106 SVPNRHHTGVDSLCNFSPLARRV 128
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               RESULT 11
US-10-198-053-488
; Sequence 488, Application US/10198053
; Publication No. US20030124140A1
; GENERAL INFORMATION:
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CURRENT FILING DATE: 2001-07-17
NUMBER OF SEQ ID NOS: 596
SOFTWARE: FAStSEQ for Windows Version 4.0
SEQ ID NO 488
LENGTH: 233
TYPE: PRT
ORGANISM: Homo sapiens
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CURRENT FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 489
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 488
LENGTH: 233
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Patent No. US20020119158A1
GENERAL INFORMATION:
APPLICANT: Algate, Paul A.
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C7
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Matches 23; Conserva
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APPLICANT:
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APPLICANT: Bangur,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: Albone, Earl
TITLE OF INVENTION: COMPOSITIONS AND METHODS I
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN
FILE REFERENCE: 210121.462CB
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                                                                                                                                                              106 SVPNRHHTGVDSLCNFSPLARRV 128
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Fanger, Gary Richard
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FOR THE THERAPY

Length 233;

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APPLICANT: Retter, Marc W.
APPLICANT: Hill, Paul
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C9
CURRENT APPLICATION NUMBER: US/10/198,053
CURRENT FILING DATE: 2002-07-17
NUMBER OF SEQ ID NOS: 624
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 488
LENGTH: 233
TYPE: PRT
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US-10-860-790-488
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US-10-860-790-488
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US-10-198-053-488
Sequence 300, Application US/09965738
Publication No. US20030143667A1
GENERAL INFORMATION:
APPLICANT: O'Brien, Timothy
TITLE OF INVENTION: Repeat Sequences of the CA125 Gene and Their Use for Diagnostic TITLE OF INVENTION: Therapeutic Interventions
FILLE REFERENCE: 40715-258841
FILLE REFERENCE: 40715-258841
CURRENT APPLICATION NUMBER: US/09/965,738
CURRENT FILING DATE: 2001-09-27
PRIOR APPLICATION NUMBER: US 60/284,175
PRIOR APPLICATION NUMBER: US 60/284,175
PRIOR FILING DATE: 2001-04-17
NUMBER OF SEQ ID NOS: 306
SOOTWARE: Patentin version 3.0
SEQ ID NO 300
LENGTH: 284
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SOPTWARR: FastSEQ for Windows Version 4.0
SEQ ID NO 488
LENGTH: 233
TYPE: PRT
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CURRENT APPLICATION NUMBER: US/10/860,790
CURRENT FILING DATE: 2004-06-02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Bangur, Chaitanya S. APPLICANT: Retter, Marc W. APPLICANT: Fanger, Gary R. APPLICANT: Hill, Paul
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                                                                                                                                                                                                                                                                                                                                                           RESULT 15
US-10-198-053-594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ; FEATURE:
, NAME/KEY: variant
; LOCATION: 136,248,268
; OTHER INFORMATION: Xaa = Any amino acid
US-09-907-969-594
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US-09-907-969-594
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER FILE REFERENCE: 210121.462C9
CURRENT APPLICATION NUMBER: US/10/198,053
CURRENT FILING DATE: 2002-07-17
NUMBER OF SEQ ID NOS: 624
SOFTMARE: FastSEQ for Windows Version 4.0
SEQ ID NO 594
LENGTH: 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NUMBER OF SEQ ID NOS: 596
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 594
LENGTH: 318
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Best Local Similarity 100.0%; Pred. No. 6e-11;
Matches 23; Conservative 0; Mismatches
                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                             Sequence 594, Application US/10198053
Publication No. US20030124140A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match 100.0%; Score 125; DB 10; Best Local Similarity 100.0%; Pred. No. 6.8e-11; Matches 23; Conservative 0; Mismatches 0;
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Publication No. US20030091580A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                                                                                                                                APPLICANT: Bangur, Chaitanya S. APPLICANT: Retter, Marc W. APPLICANT: Fanger, Gary R. APPLICANT: Hill, Paul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Hill, Paul
APPLICANT: Albone, Earl
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462CB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICANT: Mitcham, Jennifer
APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
APPLICANT: Fling, Steven P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CURRENT APPLICATION NUMBER: US/09/907,969
CURRENT FILING DATE: 2001-07-17
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APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                     191 SVPNRHHTGVDSLCNFSPLARRV 213
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Fanger, Gary Richard
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Jennifer L.
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hypothetical prote capsular polysacch hypothetical prote hypothetical prote salmonella typhimu Regulatory protein hypothetical prote hypothetical prote hypothetical prote hypothetical prote hypothetical prote hypothetical prote gl/s transition co penicillin-binding hypothetical prote conserved hypothet probable membrane 38K protein - huma hypothetical prote hypothetical prote eosinophil-derived early E3 13K glyco conserved hypothet 2a protein - broad hypothetical prote hypothetical prote probable C4-dicarb phosphoprotein pho probable protein pho probable protein pho probable protein pho	SUMMARIES	predicted by chance to have a score of the result being printed,	ries	residues parameters: 283416		₹V 23	.49; Search time 14.2279 Seconds (without alignments) 155.538 Million cell updates/sec	model	version 5.1.6 - 2005 Compugen Ltd.

45	44	43	42	41	40	39	38	37	36	35	34	<u>3</u> 3	32	31	30
41	41	41	41	41	41	41	41	41	41	41	41	41.5	41.5	41.5	41.5
32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	32.8	33.2	33.2	33.2	33.2
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phosphoenolpyruvat	hypothetical prote	probable glutamate	hypothetical prote	alanine-tRNA ligas	potassium uptake p	hypothetical prote	hypothetical prote	allergen Der f I p	protein kinase cdc	hypothetical prote	hypothetical prote	hypothetical prote	disease resistence	GRR1 protein - yea	complement C3d/Eps

ALIGNMENTS

RESULT 2 T44653 C;Accession: T44653
C;Accession: T44653
R;Chaffin, D.O.; Yim, H.H.; Beres, S.B.; Sweet, E.S.; Nittayajarn, A.; Rubens, C.E. submitted to the EMBL Data Library, June 1999
A;Reference number: Z2821
A;Accession: T44653
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DMA
A;Residues: 1-209 < CHA
A;Residues: 1-209 < CHA
A;Cross-references: UNIPROT:Q9RPB8; UNIPROT:Q8DZE5; EMBL:AF163833; PIDN:AAD53076.1
A;Experimental source: strain COH1; serotype III Ring, W.V.; Kennedy, S.P.; Mahairas, G.G.; Berquist, B.; Pan, M.; Shukla, H.D.; Lasky, S.; Leithauser, B.; Keller, K.; Cruz, R.; Danson, M.J.; Hough, D.W.; Maddocks, D.G.; Jablor Jung, K.H.; Alam, M.; Freitas T. Proc. Natl. Acad. Sci. U.S.A. 97, 12176-12181, 2000
A;Authors: Hou, S.; Daniels, C.J.; Dennis, P.P.; Omer, A.D.; Ebhardt, H.; Lowe, T.M.; Lie A;Title: Genome sequence of Halobacterium species NRC-1.
A;Reference number: A84160; MUID:20504483; PMID:11016950
A;Accession: F84196 capsular polysaccharide biosynthesis protein cpsE [imported] - Streptococcus agalactiae C;Species: Streptococcus agalactiae C;Species: Streptococcus agalactiae C;Date: 21-Jan-2000 #text_change 09-Jul-2004 밁 S A;Status; preliminary A;Molecule type: DNA A;Residues: 1-390 <STO> A;Cross-references: UNIPROT:Q9HS70; GB:AE004437; NID:g10579994; PIDN:AAG18938.1; GSPDB:GN hypothetical protein Vng0378c [imported] - Halobacterium sp. NRC-1 C;Species: Halobacterium sp. NRC-1 C;Date: 02-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 09-Jul-2004 C;Accession: F84196 A;Gene: cpsE A;Gene: Query Match 39.2%; Score 49; DB 2; Length 209; Best Local Similarity 60.0%; Pred. No. 2; Matches 9; Conservative 2; Mismatches 4; Indels Genetics: Query Match Best Local S Matches VNG0378C 41 PNAHHAVVDSLRSYAP 56 3 PNRHHTGVDSLCNFSP 18 h 41.6%; Score 52; DB Similarity 56.2%; Pred. No. 1.3; 9; Conservative 3; Mismatches 2; 4; Indels Length 390; 0 0, Gaps Gaps 0 0

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hypothetical
C;Species: Ca
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R;Wu, X.;
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A;Residues: 1-462 <GRT'>
A;Residues: 1-462 <GRT'>
A;Residues: 1-462 <GRT'>
A;Cross-references: UNIPROT:P54871; EMBL:U64842; PIDN:AAB37084.1; GSPDB:GN00023;
A;Experimental source: strain Bristol N2; clone F25B4
A;Experimental source: strain Bristol N2; clone F25B4
R;Boukaftane, Y.; Duncan, A.; Wang, S.; Labuda, D.; Robert, M.F.; Sarrazin, J.; S
Genomics 23, 552-559, 1994
                    ş
                                                                                                                               A;Map position: 5
A;Introns: 35/3; 78/3; 129/3; 205/1; C;Superfamily: hydroxymethylglutaryl-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             R;Gattung, s.
submitted to the EMBL Data Library, July 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hypothetical protein F25B4.6 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 15-Oct-1999 #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004 C;Accession: T25726; C55729
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Map position: 4
A;Introns: 17/1; 51/1; 127/3; 185/2; 220/3
C;Superfamily: Caenorhabditis elegans hypothetical
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     submitted to the EMBL Data Library, December 1997 A;Description: The sequence of C. elegans cosmid R02D3. A;Reference number: Z18284 A;Accession: T15066
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A; Residues: 5-462 < BOU>
                                                                                                                                                                                                                                                                           A;Status: preliminary; nucleic acid sequence
                                                                                                                                                                                                                                                                                                A; Accession: C55729
                                                                                                                                                                                                                                                                                                             A; Title: Human mitochondrial HMG COA synthase: liver cDNA
A; Reference number: A55729; MUID:95154824; PMID:7851882
                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Status: preliminary; translated from GB/EMBL/DDBJ
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A;Experimental source: strain Bristol N2; clone R02D3
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A; Residues: 1-266 < WUX>
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;Accession: 1
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                                                                                                                             ;Superfamily: hydroxymethylglutaryl-CoA synthase
                                                                                                                                                                                      Gene: CESP:F25B4.6
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Caenorhabditis elegans
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                                                                                                                                                                                                                      NID:g555828; PIDN:AAA92672.1;
 -SPLARRV 23
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                                                       Mismatches
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Pred. No. 2.
                                                                        Score 48; I
Pred. No. 7
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Mismatches
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AF1218
Salmonella
                                                                      RESULT 7
D83507
Appothetical protein PA1115 [imported]
C;Species: Pseudomonas aeruginosa
C;Date: 15-Sep-2000 #sequence_revision
C;Accession: D83507
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A; Residues: 1-294 <GLA>
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A; Residues: 1-294 <GLA>
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A;Experimental source: strain EGD-e
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Science 294, 849-852, 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             C;Species: Listeria monocytogenes
C;Date: 27-Nov-2001 #sequence_rev
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Science 294, 849-852, 2001
A; Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, ok, C.; Schlueter, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J. A; Title: Comparative genomics of Listeria species.
A; Reference number: AB1077; MUID:21537279; PMID:11679669
A; Accession: AIJ571
A; Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                       C;Paccession: AI1571
(R;Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, E.; Glaser, P.; Frangeul, L.; Duchaud, E.; Durand, L.; Dussurget, O.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, ok, C.; Schlueter, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J. A;Title: Comparative genomics of Listeria species.
A;Reference number: AB1077; MUID:21537279; PMID:11679669
A;Accession: AF1218
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       C;Accession: AF1218
R;Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.; Berche, P.;
R:Dominquez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; F
                                                                                                                                                                                                 A;Cross-references: UNIPROT:Q92CQ7; GB:AL592022; A;Experimental source: strain Clip11262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Species: Listeria innocua
C;Date: 27-Nov-2001 #sequence_revision 27-Nov-2001 #text_change
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Regulatory protein Salmonella typhimurium PocR protein homolog lin1114 [imported]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       239
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   typhimurium PocR protein homolog lmo1150 [imported] - Listeria monocytogenes
                                     HHTGVDSLCNFSPLARRV
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44.4%;
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Pred. No. 6.2;
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6.2;
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                                                                                                                                                                                                                      PIDN: CAC96345.1;
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                                                                                                                Length 294;
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Fsihi, H.;
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Wehland,
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15-Sep-2000

#text_change

09-Jul-2004

(strain PAO1)

Pseudomonas aeruginosa

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A;Experimental source: strain 9a5c

R;Simpson, A.J.G.; Reinach, F.C.; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R.; A Briones, M.R.S.; Bueno, M.R.P.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer, H as-Neto, E.; Bueno, M.R.P.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer, H as-Neto, E.; Docena, C.; El-Dorry, H.; Facincani, A.P.; Ferreira, A.J.S. submitted to GenBank, June 2000

A;Authors: Ferreira, V.C.A.; Ferro, J.A.; Fraga, J.S.; Franca, S.C.; Franco, M.C.; Frohm J.D.; Junqueira, M.L.; Kemper, E.L.; Kitajima, J.P.; Krieger, J.E.; Kuramae, E.E.; Laigu Chado, M.A.; Madeira, M.M.B., Madeira, H.M.F.; Marxino, C.L.; Marques, M.V.; Martino, E.A.; Authors: Martine, E.M.F.; Matsukuma, A.Y.; Menock, C.F.M.; Miracca, E.C.; Miraki, C.Y.; F.G.; Nunes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri, D.P. Rodrigues, V.; Rosa, A.J. de M.; de Rosa Jr., V.S.; de Sa, R.G.; Santelli, R.V.; Sawasak A;Authors: da Silva, A.C.R.; da Silva, F.R.; da Silva, A.M.; Silva Jr., W.A.; da Silveir M.; Tsuhako, M.H.; Vallada, H.; Van Sluys, M.A.; Verjovski-Almeida, S.; Vettore, A.L.; A; Reference number: A59328
hypothetical protein T23F11.3 - Caenorhabditis elegans C;Species: Caenorhabditis elegans C;Date: 15-Oct.1999 #sequence_revision 15-Oct-1999 #te:C;Accession: T25178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         R;anonymous, The Xylella fastidiosa Consortium or the organization to Nature 406, 151-157, 2000

Nature 406, 151-157, 2000

A;Title: The genome sequence of the plant pathogen Xylella fastidiosa A;Reference number: A82515; MUID:20365717; PMID:10910347

A;Reference number: A82515; MUID:20365717; PMID:10910347
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Nature 406, 959-964, 2000
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A;Residues: 1-285 <SIM>
A;Cross-references: UNIPROT:Q9PBU6; GB:AE004021; GB:AE003849; NID:g9107139; PIDN:AAF8484
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C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 09-Jul-2004
C;Accession: A82609
R;anonymous, The Xylella fastidiosa Consortium of the Organization for Nucleotide
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A;Experimental source: strain PAO1
                                                                                                                                                                    RESULT 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   hypothetical protein XF2039 [imported] - Xylella fastidiosa (strain 9a5c)
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                            #sequence_revision 15-Oct-1999 #text_change 09-Jul-2004
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45.0%;
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Pred. No.
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Length 285;

0;

Gaps

0

penicillin-binding protein BH2267 [imported] - C;Species: Bacillus halodurans C;Date: 01-Dec-2000 #sequence_revision 01-Dec-2 C;Accession: C83933

01-Dec-2000

#text_change

09-Jul-2004

R.; Masui, N.; Fuji, F.; Bacillus halodurans

Bacillus halodurans (strain C-125)

R;Takami, H.; Nakasone, K.; Takaki, Y.; Maeno, G.; Sasaki, R.; Nucleic Acids Res. 28, 4317-4331, 2000
A;Title: Complete genome sequence of the alkaliphilic bacterium A;Reference number: A83650; MUID:20512582; PMID:11058132
A;Accession: C83933

A; Experimental source: strain C; Genetics:

A;Status: preliminary A;Molecule type: DNA A;Residues: 1-332 <STO>

A;Cross-references: UNIPROT:Q9KAMO; GB:AP001515; GB:BA000004; NID:g10174886; PIDN:BAB0598 A;Experimental source: strain C-125

RESULT 11 C83933

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1:

Length 774;

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A;Reference number: Z19991
A;Accession: T25:178
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: DNA
A;Residues: 1-366 <WIL>
A;Cross-references: UNIPROT:022695; EMBL:Z46343; PI
A;Experimental source: clone T23F11
                                                                                                                                                       A;Description: probably involved in cell C;Superfamily: retinoblastoma-associated C;Keywords: alternative splicing
                                                                                                                                                                                                                                                                                                                                                          R;Ach, R.A.; Durfee, T.; Miller, A.B.; Taranto, P.; Hanley-Bowdoin, L.; Zambryski, P.C. Mol. Cell. Biol. 17, 5077-5086, 1997
A;Title: RRB1 and RRB2 encode maize retinoblastoma-related proteins that interact with A;Reference number: 209601; MUID:97415586; PMID:9271385
A;Accession: T01172
                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Species: Zea mays (maize)
C;Date: 12-Feb-1999 #sequence_revision 12-Feb-1999 #text_change 09-Jul-2004
C;Date: 10-Feb-1999 #sequence_revision 12-Feb-1999 #text_change 09-Jul-2004
C;Accession: T01172
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                                                                                                                                                                                                                       A;Gene: RRB2a
C;Function:
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A; Residues: 1-420 <ACH>
A; Cross-references: UNI
C; Genetics:
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T01172
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Best Local
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9; Conser
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PNGGSTSLDPAAAFSPLSKR
                                     PNRHHTGVDSLCNFSPLARR 22
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                                                                            Conservative
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Pred. No. 17;
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Pred. No. 20;
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                                                                              Mismatches
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R;Blattner, F.R.; Plunkett ...,
R;Blattner, F.R.; Plunkett ...,
A.; Rose, D.J.; Mau, B.; Shao,
A.; Rose, 1453-1462, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Heidelberg, J.F.; Eisen, J.A.; Nelson, W.C.; Clayton, R.A.; Gwinn, M.L.; Dodson, R.J. chardson, D.; Ermolaeva, M.D.; Vamathevan, J.J.; Bass, S.; Qin, H.; Dragoi, I.; Sellers, I., R.R.; Mekalanos, J.J.; Venter, J.C.; Fraser, C.M.
Nature 406, 477-483, 2000
A;Title: DNA Sequence of both chromosomes of the cholera pathogen Vibrio cholerae.
A;Reference number: A82035; MUID:20406833; PMID:10952301
A;Accession: B82301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Science 277, 1453-1462, 1997
A;Title: The complete genome sequence of Escherichia coli K-12.
A;Reference number: A64720; MUID:97426617; PMID:9278503
A;Accession: H64861
A;Status: nucleic acid sequence not shown; translation not shown
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hypothetical protein b1163 - Escherichia coli (strain K-12)
C;Species: Escherichia coli
C;Date: 12-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 09-Jul-2004
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A;Cross-references: UNIPROT:Q9KUA9; GB:AE004147; GB:AE003852; NID:g9655045; PIDN:AAF937
A;Experimental source: serogroup O1; strain N16961; biotype El Tor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        C;Species: Vibrio cholerae
C;Date: 18-Aug-2000 #sequence_revision 20-Aug-2000 #text_change 09-Jul-2004
C;Accession: B82301
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A;Residues: 1-403 <BLAT>
A;Cross-references: UNIPROT:P75990; GB:AE000215; GB:U00096; NID:g1787405; PIDN:AAC74247
A;Experimental source: strain K-12, substrain MG1655
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probable membrane protein ybiN - C;Species: Escherichia coli
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9; Conservative
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llarity 33.3%;
Conservative
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                    Escherichia
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Search completed: October 27, Job time: 15.2279 secs

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Science 277, 1453-1462, 1997
A;Title: The complete genome sequence of Escherichia coli K-12
A;Reference number: A64720; MUID:97426617; PMID:9278503
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R;Blattner, F.R.; Plunkett III, G.; Bloch, C.A.; Perna, N.T.; Burland, V.; Riley, A.; Rose, D.U.; Mau, B.; Shao, Y.

.A.; Rose, D.U.; Mau, B.; Shao, Y.
                                                                                                                                                                                                                                                                                                                                                                                                                                           38K protein - human herpesvirus
C;Species: human herpesvirus 1
A;Note: host Homo sapiens (man)
                                                                                                                                                         A;Map position: 0.16-0.20
C;Superfamily: herpesvirus 38K protein
                                                                                                                                                                                                                                                                                                                     R;MCGeoch, D.J.; Dolan, A.; Frame, M.C.
Nucleic Acids Res. 14, 3435-3448, 1986
A;Tille: DNA sequence of the region in the
A;Reference number: A93620; MUID:86205244;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           C;Date: 12-Sep-1997 #sequence_revision 17-Sep-1997 #text_change 01-Mar-2002
C;Accession: G64817
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A; Residues: 1-344 < HOM>
                                                                                                                                                                                                                                                                                                      A; Accession: A03781
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A;Experimental source: strain K-12, substrain MG1655
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       Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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     GenCore version 5.1.6 (c) 1993 - 2005 Compugen
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Q9EKZ
QBWXI7
Q9D1H1
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Q9ECS5
Y378 HALN1
HEX ADEG1
Q96E85
Q7MSF4
Q6L4N2
LCT2 MOUSE
QBK181
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SQ DR DR RE	RA CONTRA	RA RA RA	RES Q9H AC DT DT DT DE OC OC	
Nat. General AKI AKI HSSP; Q91 InterPropriam; PF PROSITE; SEQUENCE	CDNAS	SEQUENCE TISSUE=P PubMed=1 Ota T. Ota T. Sekine M Yamamoto Sudo H. Takahash Takahash Abe K. Ninomiya	ULT 1 7S7 Q9H7 Q9H7 01-M 01-M 01-M Hypo Homo Euka Mamm NCBI	3 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
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Q1-MAR-2002 (TrEMBLrel. 20, Created)
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InterPro; IPR000082; SEA.
Pfam; PF01390; SEA; 20.
SMART; SM00200; SEA; 10.
SMO200; SEA; 10.
SMO21TE; PS00152; ATPASE ALPHA_BETA; UNKNOWN_1.
PROSITE; PS50024; SEA; 6.
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Submitted (SEP-2003) to the
EMBL; AF361486; AAK74120.3;
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Mammalia; Eutheria; Primates;
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MEDLINE=21646939; PubMed=11786729; DOI=10.1159/000050638;

MEDLINE=71646939; PubMed=11786729; DOI=10.1159/000050638;
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"Molecular cloning of the cal25 ovarian
as a new mucin, mucl6.";
J. Biol. Chem. 276:27371-27375(2001).
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Pred. No. 3.1e-10;
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STRAIN=C57BL/6J; T
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=10090;
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Name=1110008I14Rik;
Mus musculus (Mouse).
Eukaryota; Metazoa; C
Mammalis; Eutheria; R
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O'Brien T.J., Underwood L.J., Beard J.B.;
O'Brien G., Underwood L.J., Beard J.B.;
Submitted (OCT-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AF41442; AAL65133.2; -.
EMBL; AF414442; AMUC16.
EMBL; BF01390; SEA; 51.
SMART; SM00200; SEA; 23.
SMART; SM00200; SEA; 23.
PROSITE; PS50024; SEA; 11.
[5]

SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

STRAIN=C57BL/SU; TISSUE=Whole body;

MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;

MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;

Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Ca

Shibata K., Itoh M., Aizawa K., Kitsunai T., Tashiro H.,
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Q9D1H1;
Q1-JUN-2001 (TrEMBLrel. 17, Created)
Q1-JUN-2001 (TrEMBLrel. 17, Last sequence update)
Q1-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Mus musculus 18-day embryo whole body cDNA, RIKEN full-length enriched
library, clone:1110008114 product:hypothetical SEA domain containing
protein, full insert sequence.
                                                                                                                                                                                                                                    SEQUENCE FROM N.A.

STRAIN-C57BL/6J; TISSUE-whole body;

STRAIN-C57BL/6J; TISSUE-whole body;

MEDLINE-20499374; PubMed=11042159; DOI=10.1101/gr.145100;

Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K.,

Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;

"Normalization and subtraction of cap-trapper-selected cDNAs
prepare full-length cDNA libraries for rapid discovery of new

Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       The FANTOM Consortium, the RIKEN Genome Exploration Research Group Phase I & II Team; the RIKEN Genome Exploration Research Group Phase I & II Team; "Analysis of the mouse transcriptome based on functional annotation 60,770 full-length cDNAs."; Nature 420:563-573 (2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Whole body;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN=C57BL/6J; TISSUE=Whole body; MBDLINE=21085660; PubMed=11217851; RIKEN FANTOM Consortium;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Carninci P., Hayashizaki Y.;
"High-efficiency full-length c
Meth. Enzymol. 303:19-44(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Nature 409:685-690(2001).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    "Functional annotation of a full-length mouse cDNA collection.";
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Pred. No. 1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DOI=10.1016/S0076-6879(99)03004-9;
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RC STRAIN=CS7BL/6J; TISSUE=Whole body;

RA Adachi J., Aizawa K., Akahira S., Akimura T., Arai A., Aono H.,

RA Adachi J., Aizawa K., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,

RA Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,

RA Hanagaki T., Hara A., Hayatsu N., Hiranoto K., Hiraoka T., Hori F.,

RA Hanagaki T., Bhii Y., Konno H., Kouda M., Koya S., Kurihara C.,

RA Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,

RA Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,

RA Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,

RA Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,

RA Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,

RA Kawai J., Kojima Y., Coha C., Saito H., Namazaki R., Numazaki R., Ohno M.,

RA Matsuyama T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,

RA Sagabe Y., Suzuki H., Tagami M., Tagama A., Takahashi F., Tanaka T.,

RA Sogabe Y., Suzuki H., Tagami M., Tagama A., Takahashi F., Tanaka T.,

RA Sogabe Y., Suzuki H., Tagami M., Tagama A., Takahashi F., Tanaka T.,

RA Sujima Y., Toya T., Yamamura T., Yasunishi A., Yoshida K., Yoshino M.,

RA Muramatsu M., Hayashizaki Y.;

RA Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.

BMBL, AKO03577; BAB22869.1; -

DR PDB; IIVZ; NMR; A-60-190.

RA TATARANO3577; SARAINO36114Rik.
Query Match
Best Local Similarity
Matches 8; Conser
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Q98C55;
01-OCT-2001
                                                                                                                             Complete
SEQUENCE
                                                                                                                                                                                                                                                                                                        Kaneko T., Nakamura Y., Sato S., Asamizu E., Kato T., Sasamoto Watanabe A., Idesawa K., Ishikawa A., Kawashima K., Kimura T., Kishida Y., Kiyokawa C., Kohara M., Matsumoto M., Matsuno A., Mochizuki Y., Nakayama S., Nakazaki N., Shimpo S., Sugimoto M., Takeuchi C., Yamada M., Tabata S.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A. STRAIN=MAFF303099;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Rhizobium loti (Mesorhizobium loti).
Bacteria; Proteobacteria; Alphaproteobacteria; Rhizobiales;
Phyllobacteriaceae; Mesorhizobium.
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                                                                                                                                                                                    "Complete genome structure of the nitrogen-fixing symbiotic bacterium mesorhizobium loti.";
DNA Res. 7:331-338 (2000)
EMBL; AP003006; BAB51766.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OrderedLocusNames=mll5290;
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01-MAR-2002 (TrEMBLrel.
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258 AA; 2
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90.0%;
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20,
Score 52; DB:
Pred. No. 2.9;
6; Mismatches
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Pred. No.
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                                                                                                                             C43AC343668BEDAD CRC64;
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Kashiwagi K.,
Watahiki M.,
S., Kawai J.,
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Y378_HALN1
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                                                                                                                                                              01-NOV-1995 (Rel. 32, Created)
01-NOV-1995 (Rel. 35, Last sequence update)
01-NOV-1997 (Rel. 35, Last annotation update)
05-UUL-2004 (Rel. 44, Last annotation updat
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ng W.V., Kennedy S.P., Mahairas G.G., Berquist B., Pan M., Shukla H.D., Lasky S.R., Baliga N.S., Thorsson V., Sbrogna J., Swartzell S., Weir D., Hall J., Dahl T.A., Welti R., Goo Y.A., Leithauser B., Keller K., Cruz R., Danson M.J., Hough D.W., Maddocks D.G., Jablonski P.E., Krebs M.P., Angevine C.M., Dale H., Isenbarger T.A., Peck R.F., Pohlschroder M., Spudich J.L., Jung K.-Alam M., Freitas T., Hou S., Daniels C.J., Demnis P.P., Omer A.D., Ebhardt H., Lowe T.M., Liang P., Riley M., Hood L., DasSarma S.; "Genome sequence of Halobacterium species NRC-1."; proc. Natl. Acad. Sci. U.S.A. 97:12176-12181(2000).
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Q9HS70;
28-FEB-2003
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28-FEB-2003 (Rel. 41, Last sequence update)
05-JUL-2004 (Rel. 44, Last annotation update)
Hypothetical UPF0204 protein Vng0378C.
OrderedLocusNames=VNG0378C;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the Buropean Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                       Avian adenovirus gall (strain Phelps)
Viruses; dsDNA viruses, no RNA stage;
                                                                                                                                                     Hexon protein (Late protein Name=PII;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Halobacterium sp. (strain NRC-1 / ATCC 700922 / JCM 11081).
Archaea; Euryarchaeota; Halobacteria; Halobacteriales;
Halobacteriaceae; Halobacterium.
   SEQUENCE FROM N.A
                                                       NCBI_TaxID=10553;
                                                                                                                                                                                                                                                                                                                                       HEX_ADEG1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Complete proteome; Hypothetical protein. SEQUENCE 390 AA; 40610 MW; A2AF934F59498317 CRC64:
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InterPro; IPR007508; DUF516.
Pfam; PF04414; DUF516; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PIR; F84196; F84196.
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MEDLINE=20504483; PubMed=11016950; DOI=10.1073/pnas.190337797;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=64091;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PNAHHAVVDSLRSYAP 56
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                                                                       STANDARD;
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                                                                                          (Fowl adenovirus 1) (CELO)
Adenoviridae; Aviadenoviru
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Q96585; TrEMB
01-FBB-1997 (TrEMB
01-FBB-1997 (TrEMB
01-MAR-2004 (TrEMB
Viral structural p
GO; GO:0019028; C:viral capsid; IEA.
GO; GO:005198; F:structural molecule
InterPro; IPR000736; Adeno_hexon.
InterPro; IPR001680; WD40.
Pfam; PF01065; Adeno_hexon; 1.
Pfam; PF03678; Adeno_hexon_C; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    EMBL; U4693; AAC54912.1; -.
EMBL; U13161; AAA51401.1; -.
HSSP; D3277; 1DHX.
InterPro; IDR000736; Adeno hexon.
InterPro; IPR000736; Adeno hexon.
Pfam; PF01665; Adeno hexon; 1.
Pfam; PF03678; Adeno hexon; 1.
ProDom; PD02815; Adeno hexon; 1.
ProDom; PD02815; Adeno hexon; 1.
Coat protein; Hexon protein; Late protein.
SEQUENCE 942 AA; 106709 MW; 7F4CE8D3F17D051B CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                        MEDLINE=97049067; PubMed=8893797;
Akopian T.A., Doronin K.K., Karpov V.A.,
"Sequence of the avain adenovirus FAV1 (
associated protein pIV and hexon.";
Arch. Virol. 141:1759-1765(1996).
                                                                                                                                                                                                                                                                                                                                                                                                  Avian adenovirus gall (strain Viruses; dsDNA viruses, no RNA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Virology 196:358-362(1993).
-!- FUNCTION: This protein is one viral coat and is synthesized
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Organization of the avian endopeptidase.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cotten M.; The complete DNA sequence and genomic organization of the avian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           MEDLINE=93362429; P
Cai F., Weber J.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE OF 913-942 FROM
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                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    Name=hexon;
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                                                                                                                                                  HSSP;
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P04133; 1P30.
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9; Conserv
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7 (TrEMBLrel. 02, I
4 (TrEMBLrel. 26, I
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annotation update)
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GO; GO:0005198; F:structural molecule ac
InterPro; IPR000736; Adeno_hexon.
InterPro; IPR001680; WD40.
InterPro; IPR001680; WD40.
Pfam; PF01065; Adeno_hexon; 1.
Pfam; PF03678; Adeno_hexon; 1.
ProDom; PD002815; Adeno_hexon; 1.
PROSITE; PS00678; WD REPEATS 1; UNKNOWN
SEQUENCE 942 AA; 106709 MW; 7F4CE8D3
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SEQUENCE
SEQUENCE FROM N.A.

SEQUENCE FROM N.A.

Chow T.-Y., Hsing Y.-I.C., Chen C.-S., Che
Chao Y.-T., Chang S.-J., Chen H.-C., Chen
Chen Y.-L., Cheng C.-H., Chung C.-I., Han
Hsiung J.-N., Hsu C.-H., Huang J.-J., Kau
                                                                                                                                                                                                                                                Name=P0473H02.11;
Oryza sativa (japonica cultivar-group).
Cryza sativa (japonica cultivar-group).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;
Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;
Ehrhartoidese; Oryzeae; Oryza.
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Viruses; dsDNA viruses, no RNA stage; Adenoviridae; Aviadenovirus.
NCBL_TaxID=10553;
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Q6L4N2;
                                                                                                                                                                                                                                                                                                                                                                                                             25-OCT-2004 (TrEMBLrel. 28, Created)
25-OCT-2004 (TrEMBLrel. 28, Last sequence update)
25-OCT-2004 (TrEMBLrel. 28, Last annotation updat
Hypothetical protein P0473H02.11.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE FROM N.A.
MEDLINE=22935380; PubMed=14573794; DOI=10.1099/vir.0.19497-0;
Davison A.J., Benko M., Harrach B.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAR-2004
01-MAR-2004
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E 942 AA; 106695 MW; 9
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9; Conservative
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pred. No. 33;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 51;
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7F4CE8D3F17D051B
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903732D3F5E6DC6F
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             Chen H.-H., Liu S.-M.,
hen S.-K., Chen T.-R.,
Han S.-Y., Hsiao S.-H.,
Kau P.-I., Lee M.-C., L.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   BB
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Submitted (MAY-2004) to the EMBL/GenBank/Di
EMBL; AC132486; AAT38073.1; -.
GO; GO:0016491; F:oxidoreductase activity;
GO; GO:0006118; P:electron transport; IEA.
InterPro; IPRO08274; Aldxan_dh_bind.
                                                         This SWISS-PROT entry is copyright. It is produced through a chetween the Swiss Institute of Bioinformatics and the EMBL the European Bioinformatics Institute. There are no restrict use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and foentities requires a license agreement (See http://www.isb-sib.or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Molecular cloning of mouse and bovine chondromodulin-II growth-promoting actions of bovine recombinant protein."; J. Biochem. 125:436-442(1999).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Yamagoe S., Watanabe T., Mizuno S., Suzuki K.;
"The mouse Lect2 gene: cloning of cDNA and genomic DNA, structural characterization and chromosomal localization.";
Gene 216:171-178(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     STRAIN=BALB/c; TISSUE=Liver; MEDLINE=98382586; PubMed=9714793; DOI=10.1016/S0378-1119(98)00294-7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MOUSE STANDARD; PRT; 151 AA.
CCT2 MOUSE STANDARD; PRT; 151 AA.
O88803; O88804; O9OWN3; O9Z337;
15-UUL-1999 (Rel. 38, Created)
15-UUL-1999 (Rel. 38, Last sequence update)
05-UUL-2004 (Rel. 44, Last annotation update)
Leukocyte cell-derived chemotaxin 2 precursor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Shukunami C., Kondo J., Wakai H., Takahashi K.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN=Swiss Webster / NIH; TISSUE MEDLINE=99160594; PubMed=10050029;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE
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Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mus musculus
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SEQUENCE 70
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Biochem. 125:436-442(1999).
- FUNCTION: Has a neutrophil chemotactic regulator of chondrocyte proliferation.
                                                                                                                                                                                                                                                                                                                                                   IsoId=088803-2; Sequence=VSP_003051; TISSUE SPECIFICITY: Highly expressed in liver an testis. Not expressed in heart, brain, spleen, 1 muscle and kidney.
SIMILARITY: Belongs to the LECT2 / MIM-1 family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Name=1; Synonyms=LECT2;
IsoId=088803-1; Sequence=Displayed;
Name=2; Synonyms=LECT2Q;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBCELLULAR LOCATION: Secreted ALTERNATIVE PRODUCTS:
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                                                                                                   (See http://www.isb-sib.ch/announce/
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  activity.
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RESULT 12
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RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hong L.,
RA Hopkins R.F., Jordan R., Parmer A.A., Rubin G.M., Hong L.,
RA Brownstein M.J., Uddin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Uddin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Hithards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
Vilalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Villalon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Pahey J., Helton E., Ketteman M., Madan A., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butterfield Y.S.,
A Krzywinski M.I., Skalska U., Smailus D.E., Schnerch A., Schein J.E.,
RA Jones S. T. Marra M.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Matches
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Best Local
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EMBL; AB009689; BAA33386.1; -.
EMBL; AB0095161; AAF13302.1; -.
MGD; MGI:1278342; Lect2.
InterPro; IRR008663; LECT2.
Pfam; PF05429; LECT2; 1.
Alternative splicing; Chemotaxis; S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  VARIANT
SEQUENCE
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VARSPLIC
                                                                                                                                                                           Jones S.J., Marra M.A.;
"Generation and initial analysis
and mouse cDNA sequences.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE FROM N.A.
STATE TISSUE=Liver;
                                                                              Strausberg R.;
Submitted (APR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          01-OCT-2002 (TrEMBLrel.
01-OCT-2002 (TrEMBLrel.
01-MAR-2004 (TrEMBLrel.
                             EMBL; BC027753; AAH27753.1; -. MGD; MGI:1278342; Lect2. GO; GO:0005615; C:extracellular
                                                                                                               STRAIN=FVB/N; TISSUE=Liver;
                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=10090;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mus musculus (Mouse)
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                                                                              (APR-2002) to the
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151 AA;
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LECT2;
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                                                                                EMBL/GenBank/DDBJ
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Pred. No. 7.8;
5; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /FTId=VSP_003051.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Craniata; Vertebrata; Euteleostomi; Sciurognathi; Muridae; Murinae; Mus
                                                                                                                                                                99:16899-16903 (2002)
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                               space;
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01-OCT-2001
01-DEC-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 01-MAY-2000
01-MAY-2000
25-OCT-2004
                                                                                                                                                                       MEDLINE-96228704; PubMed=8830246;
Haft R.F., Wessels M.R., Mebane M.F., Conaty N., Rubens C.E.;
"Characterization of cpsF and its product CMP-N-acetylneuraminic synthetase, a group B streptococcal enzyme that can function in K capsular polysaccharide biosynthesis in Escherichia coli.";
Mol. Microbiol. 19:555-563(1996).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         "Molecular characterization of type-specific cabiosynthesis genes of Streptococcus agalactiae J. Bacteriol. 181:5176-5184(1999).
EMBL; AB028896; BAA82289.2; -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A. MEDLINE=99395021;
           MEDLINE=20372630; PubMed=10913080;
DOI=10.1128/JB.182.16.4466-4477.20
Chaffin D.O., Beres S.B., Yim H.H.
                                                                                                                                                                                                                                                                                                                                                               SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                               NCBI_TaxID=1311;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Streptococcus agalactiae.
Bacteria, Firmicutes, Lactobacillales,
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                                                                                                                        FROM N.A.
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207 AA; 22397 MW; D3329979F9E68C53
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ke K., Koike Y.,
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EMBL; AF337958; AAK11672.1; --
EMBL; AF349539; AAK29663.1; --
EMBL; AF355776; AAK43617.1; --
EMBL; AF35562; AAR29918.1; --
EMBL; AY375363; AAR29930.1; --
EMBL; AY375363; AAR29930.1; --
EMBL; AY376403; AAR25958.1; --
PIR; T44653; T44653.
                                                                                   SEQUENCE FROM N.A.

STRAIN=2603 V/R / Serotype V;

MEDLINE=2222988; PubMed=12200547; DOI=10.1073/pnas.182380799;

Tettelin H., Masignani V., Cieslewicz M.J., Eisen J.A., Peterson S.N.,

Wessels M.R., Paulsen I.T., Nelson K.E., Margarit I., Read T.D.,

Madoff L.C., Wolf A.M., Beanan M.J., Brinkac L.M., Daugherty S.C.,

DeBoy R.T., Durkin A.S., Kolonay J.F., Madupu R., Lewis M.R.,

Radune D., Pedorova N.B., Scanlan D., Khouri H.M., Mulligan S.,

Carty H.A., Cline R.T., Van Aken S.E., Gill J., Scarselli M., Mora M.,

Iacobini E.T., Brettoni C., Galli G., Mariani M., Vegni F., Maione D.,

Rinaudo D., Rappuoli R., Telford J.L., Kasper D.L., Grandi G.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Q8DZE5;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rodriques S., Fahey J., Wessels M.R. "Evolution of group B Streptococcus Submitted (AUG-2003) to the EMBL/Gen EMBL; AF163833; AAD53076.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                STRAIN=CNTC 1/82;
McKinnon K., Chaffin
Submitted (MAR-2001)
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McKinnon K., Chaffin
Submitted (FEB-2001)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Name=neuD; OrderedLocusNames=SAG1159;
Streptococcus agalactiae (serotype V).
Bacteria; Firmicutes; Lactobacillales;
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Submitted (JAN-2001)
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J. Bacteriol. 182:4466-4477(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                    NCBI_TaxID=216466;
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                                       "Complete genome
                                                                   Fraser C.M.;
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J., Wessels M.R., Rubens C.E.;
B. Streptococcus capsular polysaccharides.";
to the EMBL/GenBank/DDBJ databases.
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

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Payne G, Vater CA;

Chittenden T,

Goldmakher V,

Chun P,

Sneider-Mulready K;

(IMMU-) IMMUNOGEN INC.

WPI; 2004-091350/09.

This invention relates to a novel isolated monoclonal antibody that specifically binds to an epitope of a non-shed extracellular portion of a shed antigen or of human Mucl or Mucl6 protein. The invention may be useful for the development of compounds with a cytostatic or for gene therapy. The composition and methods are useful in diagnosing, treating or monitoring malignancies, such as breast or ovarian cancer. The present sequence is that of a peptide which was used for raising antibodies to the extracellular, non-shed region of Mucl6 and which is claimed in the

Sequence 28 AA; specification. New antibody to non-shed human Muc1 or Muc16, useful for diagnosing, treating or monitoring malignancies, such as breast or ovarian cance

Claim 14; SEQ ID NO 18; 113pp; English.

.0 526 .0 803 .0 803 .0 833 .0 833 .0 833 .0 833 .0 914 .0	100.0 526 4 AAB:12634 100.0 748 8 ADS94303 100.0 809 8 ADS94303 100.0 833 3 AAB:12554 100.0 833 5 AB9128598 100.0 833 7 ADA08542 100.0 833 7 ADF08885 100.0 914 4 AAB99203 100.0 914 5 ABP30968 100.0 914 5 ABP30968 100.0 914 7 ADA08631 100.0 914 7 ADA08631 100.0 914 7 ADF08974 1100.0 914 7 ADF08974 1100.0 914 7 ADF08974								38												
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ALIGNMENTS

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RESULT 1
ADJ66745
ID ADJ66745
AC ADJ6
AC AC ADJ6
AC AD
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breast cancer; ovarian cancer.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                monoclonal antibody; epitope; non-shed extracellular portion;
shed antigen; human; Mucl; Mucl6; cytostatic; gene therapy; malignancy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human Muc1/Muc16 protein-related peptide SeqID18
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RESULT 2
ADJ66729
ID ADJ66729
ID ADJ66729
AC ADJ6
XX ADJ6
XX Homono
XX Homono
XX Homo

RESULT 3
ADJ66740
ID ADJ6
XX
AC ADJ6
XX
DT 06-W
XX
DE Huma
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Best Local S
Matches 28
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Best Local
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Vater
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New antibody to non-shed human Muc1 or Muc16, useful for diagnosing, treating or monitoring malignancies, such as breast or ovarian cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                specifically binds to an epitope of a non-shed extracellular portion can shed antigen or of human Muci or Mucl6 protein. The invention may be useful for the development of community with a cytostatic or for gene therapy. The composition and methods are useful in diagnosing, treating or monitoring malignancies, such as breast or ovarian cancer. The presequence is that of a Muc epitope of the invention.
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        Human Muc16 GST fusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 108
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This invention relates to a novel isolated monoclonal antibody that
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WPI; 2004-091350/09
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shed antigen; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         06-MAY-2004
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                                                              06-MAY-2004
                                                                                                                     ADJ66740;
                                                                                                                                                                  ADJ66740 standard; protein; 108
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                                                                                                                                                                                                                                                                                                                                                                                                                        Conservative
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                                                            (first entry)
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Muc1; Muc16; cytostatic; gene therapy; malignancy;
     protein amino acid sequence SeqID13
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Pred. No. 3.6e-14;
; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
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RESULT 4
ADM30756
ID ADM3
XX
ADM30756
ID ADM3
XX
AC ADM:
XX
AC ADM
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                                                                                                               07-MAR-2002; 2002US-0362527P
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                                                            (AVAL-) AVALON PHARM
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PE,

Ebner R,

Strovel

W.

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Matches
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Vater CA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           monoclonal antibody; epitope;
shed antigen; human; Muc1; Muc
breast cancer; ovarian cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      This invention relates to a novel isolated monoclonal antibody that specifically binds to an epitope of a non-shed extracellular portion of a shed antigen or of human Mucl or Mucl6 protein. The invention may be useful for the development of compounds with a cytostatic or for gene therapy. The composition and methods are useful in diagnosing, treating or monitoring malignancies, such as breast or ovarian cancer. The present sequence is that of the human Mucl6 GST fusion protein which was used in
                                                                                                                                                                                               Human cancer linked protein referred to as 192292 SeqID 4.
                                                                                                                                                                                                                                                                                                                                ADM30756 standard; protein; 174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 108 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Disclosure; SEQ ID NO 13; 113pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New antibody to non-shed human Muc1 or Muc16, useful treating or monitoring malignancies, such as breast o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 2004-091350/09
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18-SEP-2003
                                           WO2003075854-A2
                                                                                   Homo sapiens
                                                                                                                              cytostatic;
                                                                                                                                                        human;
                                                                                                                                                                                                                                             20-MAY-2004
                                                                                                                                                                                                                                                                                       ADM30756;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     the exemplification of the invention.
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                                                                                                                                                        cancer-related
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  th 100.0%; Similarity 100.0%; 28; Conservative (
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      DRVAIYEEFLRMTRNGTQLQNFTLDRSS
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                                                                                                                                   immunostimulant;
                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  epitope; non-shed extracellular portion;
Muc1; Muc16; cytostatic; gene therapy; malignancy;
                                                                                                                                                   gene;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Goldmakher V,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    0
                                                                                                                                   screening assay;
cancer; ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Score 141; DB 8;
Pred. No. 3.6e-14;
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                                                                                                                                                     immuno-conjugate;
                                                                                                                                   cancer
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Length 108;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 l for diagnosing, or ovarian cancer.
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                                                                                                             Mitcham C
Reed SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           This invention relates to a novel method of identifying an agent that modulates the activity of a cancer-related gene. Specifically, it refers to a screening assay to identify potential antitumour agents, as well as methods to assess the cancerous state of a cell. The present invention describes antibodies against the expression products of these cancer-related genes that are capable of targeting a cancerous cell in vivo. Furthermore it provides immuno-conjugates containing such antibodies, which can be used to deliver target therapeutics thereto. Accordingly, these compositions that exhibit cytostatic and immunostimulant activities are useful for preventing or treating cancer in humans and in particular the treatment of ovarian cancer. This polypeptide sequence is a protein encoded by a human cancer-linked gene of the invention.
Example 13; Page 361-362; 408pp; English
                         Polypeptides comprising an immunogenic portion of protein or its variants, useful for stimulating ar patient and treating ovarian cancer.
                                                                                                                                                                             17-JUL-2000; 2000US-00617747.

10-AUG-2000; 2000US-00636801.

20-SEP-2000; 2000US-00667857.

04-APR-2001; 2001US-00827271.

18-JUN-2001; 2001US-00884441.
                                                                                                                                                                                                                                                                                                                                                                        Human; immunostimulant; cytostatic; cancer; ovarian carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Identifying an agent that modulates the activity of any of three specific cancer-related genes, potentially useful in treating (ovarian) cancer, comprises detecting a difference in expression of the gene in the presence of the agent.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI;
                                                                                   WPI; 2002-164781/21.
                                                                                                                                                                                                                                                                17-JUL-2001;
                                                                                                                                                                                                                                                                                            24-JAN-2002
                                                                                                                                                                                                                                                                                                                      WO200206317-A2
                                                                                                                                                                                                                                                                                                                                                 Homo
                                                                                                                                                                                                                                                                                                                                                                                                     Predicted extracellular domain of 0772P.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABP30979;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ABP30979 standard; protein; 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N-PSDB;
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28; Conserv
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, Vedvick
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       174
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Carter
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Pred. No. 6.3e-14;
; Mismatches 0;
                                                                                                             D, PA
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                                                                                                             Fling SP, Retter Hill P, Albone E;
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                                                         ovarian carcinoma
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RESULT 6
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      The invention relates to an isolated O772P polypeptide, which has the structure fully defined in the specification. The composition containing the polypeptides, polynucleotides, fusion proteins, antibodies, T-cells or antigen presenting cells are useful for stimulating an immune response and treating ovarian cancer. Detecting the presence of the polynucleotides and polypeptides is useful for diagnosing cancer. Ovarian carcinoma cDNAs and protein cDNAs were identified using microarray
                                                                                                                                                                                               Mitcham ,
Reed SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This invention relates to polypeptides comprising an immunogenic portion of an ovarian carcinoma protein which acts as an immunostimulant and is cytostatic. The polypeptides, polynucleotides, antibodies, fusion proteins, T cell populations and antigen presenting cells that express the polypeptides are useful for stimulating an immune response in a patient and treating ovarian cancer. This sequence represents protein related to the invention
                                                                                                                                   New isolated 0772P polypeptides and therapy, particularly for treating of
                                                                                                    Disclosure;
                                                                                                                                                                         WPI; 2003-532352/50
                                                                                                                                                                                                                                                                                         (RETT/)
                                                                                                                                                                                                                                                                                                                 (ALGA/)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Human 0772P
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   ADA08642;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ADA08642 standard; protein; 178
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Sequence 178 AA;
                                                                                                                                                                                                                                                                                                                                        (KING/
                                                                                                                                                                                                                                  (ALBO/)
                                                                                                                                                                                                                                                                                (REED/
                                                                                                                                                                                                                                                                                                                                                      (MITC/)
                                                                                                                                                                                                                                                        CART/
                                                                                                                                                                                                                                                                     (VEDV/)
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                                                                                                                                                                                                                                                      MITCHAM J L.
KING G E.
ALGATE P A.
FLING S P.
FLING S P.
FANGER G R.
FANGER G R.
REED S G.
VEDVICK T S.
CARTER D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               gene therapy;
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                                                                                                                                                                                               JL, King
, Vedvick
                                                                                                                                                                                                                                 HILL P.
ALBONE E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    DRVAIYEEFLRMTRNGTQLQNFTLDRSS
                                                                                                    Page 28;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    partial protein
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                                                                                                                                                                                                                                                                                                                                                                                                   2001US-00907969
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
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                                                                                                   371pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ovarian cancer;
                                                                                                                                                                                                Algate
Carter
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Pred. No. 6.4e-14;
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                                                                                                                                                                                                Fling SP, Rett
Hill P, Albone
                                                                                                                                     d polynucleotides, useful in or diagnosing cancer, e.g. o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          28
                                                                                                                                                                                               Retter MW,
lbone E;
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                                                                                                                                                                                                           Fanger GR;
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present sequence represents a human ovarian carcinoma

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RESULT 7
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                                         The invention describes nucleic acids (I) and the polypeptides (II) they cencode. The nucleic acids (I) may be used for preventing, diagnosing and treating diseases related to their aberrant expression i.e. breast cancers. For example, (I) and (II) may be used to treat disorders associated with decreased expression by rectifying mutations or deletions in a patient's genome that affect the activity of (II) by expressing inactive proteins or to supplement the patients own production of (II). Additionally, (I) may be used to produce (II), by inserting (I) into a host cell and culturing the cell to express the protein (II). (I) And its complementary sequences may also be used as DNA probes in diagnostic complementary sequences may also be used as DNA probes in diagnostic assays to detect and quantitate the presence of similar nucleic acids in samples, and therefore which patients may be in need of restorative therapy. The host cell may also be used as antigens in the production of antibodies against (II) and in assays to identify modulators of (II)'s expression and activity. The anti-(II) antibodies, agonists and
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 17-DEC-1998; 98US-00216003.
23-UN-1999; 99US-00338933.
24-SEP-1999; 99US-00617747.
17-UH-2000; 2000US-00617747.
10-AUG-2000; 2000US-00636801.
20-SEP-2000; 2000US-00667857.
04-APR-2001; 2001US-00827271.
18-JUN-2001; 2001US-00884441.
17-UUL-2001; 2001US-00907969.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Oncogenic nucleic acids useful for treatment of breast cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         gene therapy; protein therapy; vaccine; antibody inhibition;
breast cancer; restorative therapy; diagnostic agent; immunoassay;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          17-JUL-2002; 2002US-00198053
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Example 13; SEQ ID NO 489; 399pp; English.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Retter MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
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Pred. No. 6.4e-14;
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activity and
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DRVAIYEEFLRMTRNGTQLQNFTLDRSS

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Mismatches

Indels

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DRVAIYEEFLRMTRNGTQLQNFTLDRSS

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ABP30978

ABP3 0978

AC ABP3

XX AX AXX

DT 02-J

XX Extl

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XX Homc

XX W020

DT 17-J

PR 117-J

PR 117-J

PR 10-P

PR 20--C

XX AX

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Best Local S
Matches 28
Query Match
Best Local Similarity
Matches 28; Conserv
                                                                                                                                                                                                                                                                                                                 Mitcham o
                                                                                              This invention relates to polypeptides comprising an immunogenic portion of an ovarian carcinoma protein which acts as an immunostimulant and is cytostatic. The polypeptides polynucleotides, antibodies, fusion proteins, T cell populations and antigen presenting cells that express the polypeptides are useful for stimulating an immune response in a patient and treating ovarian cancer. This sequence represents protein
                                                                                                                                                                                                                            Polypeptides comprising an immunogenic portion of protein or its variants, useful for stimulating patient and treating ovarian cancer.
                                                                                                                                                                                                                                                                                                                                                                                  17-JUL-2000; 2000US-00617747.
10-AUG-2000; 2000US-00636801.
20-SEP-2000; 2000US-00667857.
04-APR-2001; 2001US-00827271.
18-JUN-2001; 2001US-00884441.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                diagnostic agents for detecting the presence of (II) in samples (e. immunoassay). This sequence represents a secreted ovarian carcinoma
                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Extracellular and transmembranal regions of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ABP30978;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 178
                                                                                                                                                                                                  Example 13; Page 361; 408pp; English.
                                                                                                                                                                                                                                                                                      WPI; 2002-164781/21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-JUL-2001; 2001WO-US022635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      24-JAN-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Human; immunostimulant; cytostatic; cancer; ovarian carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ABP30978 standard; protein; 233 AA
                                                                                    related to the invention
                                                                                                                                                                                                                                                                                                                                                          (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    œ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               129
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                                                                                                                                                                                                                                                                                                                 n JL, King
3, Vedvick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
                                                        233 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DRVAIYEEFLRMTRNGTQLQNFTLDRSS 156
100.
ilarity 100.
Conservative
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A
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                                                                                                                                                                                                                                                                                                                 TS,
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                                                                                                                                                                                                                                                                                                                  Algate
Carter
             0.04;
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                                                                                                                                                                                                                                                                                                               D, PA
             Score 141; DB 5;
Pred. No. 8.8e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 141; DB 7;
Pred. No. 6.4e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                  Fling Hill P,
                                                                                                                                                                                                                                                                                                                  SP, Retter MW,
, Albone E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     0772P
                                                                                                                                                                                                                                       of an
                          Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 178;
                                                                                                                                                                                                                                                           an
                                                                                                                                                                                                                                             an ovarian carcinoma immune response in
                             233;
                                                                                                                                                                                                                                                                                                                                Fanger GR;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    <u>.</u>
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RESULT 10
ADF08984
ID ADF08
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AC ADF08
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AC ADF08
XX
DT 12-FE
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ADA08641
ADA08641
ADA08641
ADA08641
ADA08641
AC ADA0
XX ADA0
XX Hume
XX Hume
XX US20
XX US20
XX I5--
PD 15--
XX Hi-
PF 17--
XX (MI)
PA (KII)
PA (KII)
PA (REE
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                                                                                                                                                                                                                                                                                                             Matches
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                                                                                                                                                                                                                                                                                                                                                       Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mitcham
Reed SG,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The invention relates to an isolated 0772P polypeptide, which has the structure fully defined in the specification. The composition containing the polypeptides, polynucleotides, fusion proteins, antibodies, T-cells or antigen presenting cells are useful for stimulating an immune response and treating ovarian cancer. Detecting the presence of the polynucleotides and polypeptides is useful for diagnosing cancer. Ovarian carcinoma cDNAs and protein cDNAs were identified using microarray
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New isolated 0772P polypeptides and polynucleotides, useful in gene therapy, particularly for treating or diagnosing cancer, e.g. ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            US2003091580-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Human 0772P partial protein
12-FEB-2004
                                              ADF08984;
                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 233 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Example 13; Page 28; 371pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI; 2003-532352/50.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         17-JUL-2001; 2001US-00907969.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               15-MAY-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     human; gene therapy; ovarian cancer; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     06-NOV-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADA08641 standard; protein;
                                                                                         ADF08984 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       technology. The present sequence represents a human ovarian carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 18-JUN-2001; 2001US-00884441
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (RETT/)
(FANG/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (VEDV/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MITC/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CART/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FLIN/)
                                                                                                                                                                                                               129
                                                                                                                                                                                                                                                                                                      28;
                                                                                                                                                                                                                                                         \vdash
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3, Vedvick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             FLING S P.
RETTER M W.
FANGER G R.
REED S G.
VEDVICK T S.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CARTER D.
HILL P.
ALBONE E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 KING G E.
ALGATE P A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MITCHAM J L.
                                                                                                                                                                                                                                                       DRVAIYEEFLRMTRNGTQLQNFTLDRSS 28
                                                                                                                                                                                                          DRVAIYEEFLRMTRNGTQLQNFTLDRSS 156
                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (first
(first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TS,
                                                                                         peptide; 233
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   entry)
                                                                                                                                                                                                                                                                                                                               100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Algate
Carter
                                                                                                                                                                                                                                                                                                 0;
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                                                                                                                                                                                                                                                                                                                            Score 141; DB 7;
Pred. No. 8.8e-14;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PΑ,
                                                                                           A
                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   B
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fling SP, Retter
Hill P, Albone E;
                                                                                                                                                                                                                                                                                                      0
                                                                                                                                                                                                                                                                                                                                                  Length 233;
                                                                                                                                                                                                                                                                                                        Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        W.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Fanger
                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                      Gaps
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RESULT 11 ABU54859

ABU54859;

ABU54859 standard; protein; 284 AA.

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Query Match
Best Local Similarity
                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                     cancers. For example, (I) and (II) may be used to treat disorders associated with decreased expression by rectifying mutations or deletions in a patient's genome that affect the activity of (II) by expressing inactive proteins or to supplement the patients own production of (II). Additionally, (I) may be used to produce (II), by inserting (I) into a host cell and culturing the cell to express the protein (II). (I) And its complementary sequences may also be used as DNA probes in diagnostic assays to detect and quantitate the presence of similar nucleic acids in samples, and therefore which patients may be in need of restorative therapy. The host cell may also be used as antigens in the production of antibodies against (II) and in assays to identify modulators of (II)'s expression and activity. The anti-(II) antibodies, against may be used to regulate expression and activity and as diagnostic agents for detecting the presence of (II) in samples (e.g. by improved the contractive to the presence of (II) in samples (e.g. by improved the contractive to the presence of (II) in samples (e.g. by improved the contractive to the presence of (II) in samples (e.g. by improved the contractive to the presence of (II) in samples (e.g. by improved the contractive to the presence of (II) in samples (e.g. by improved the contractive to the contractive to the contractive to the presence of (II) in samples (e.g. by improved the contractive to the contra
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23-JUN-1999;
24-SEP-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The invention describes nucleic acids (I) and the polypeptides (II) they encode. The nucleic acids (I) may be used for preventing, diagnosing and treating diseases related to their aberrant expression i.e. breast
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  gene therapy; protein therapy; vaccine; antibody inhibition;
breast cancer; restorative therapy; diagnostic agent; immunoassay;
                                                                                                                                                                                                                                                                                                              Sequence 233
                                                                                                                                                                                                                                                                                                                                                                                            antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Example 13; SEQ ID NO 488; 399pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Oncogenic nucleic acids useful treatment of breast cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2003-897152/82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Bangur CS,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           04-APR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20-SEP-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-JUL-2000;
10-AUG-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  17-JUL-2002;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-JUL-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 secreted ovarian carcinoma antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Secreted ovarian carcinoma antigen seqid 488
                                                                                                                                                                                                                                                                                                                                                                                                                                 immunoassay).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     17-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  18-JUN-2001;
129
                                                                                                                                                   28;
                                    DRVAIYEEFLRMTRNGTQLQNFTLDRSS
DRVAIYEEFLRMTRNGTQLQNFTLDRSS 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98US-00216003.

99US-00338933.

99US-00404879.

2000US-00617747.

2000US-00636801.

2000US-00637857.

2001US-00827271.

2001US-00884441.

2001US-00907969.
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                                                                                                                                               100.0%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                              A
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                                                                                                                                                                                                                                                                                                                                                                                                                                 This sequence represents a secreted ovarian carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     98US-00215681
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fanger
                                                                                                                                                   0
                                                                                                                                               Score 141; DB 7;
Pred. No. 8.8e-14;
0; Mismatches 0;
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6
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       the prevention, diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hi11
                                                                         28
                                                                                                                                                                                                                            Length
                                                                                                                                                       0
                                                                                                                                                   Gaps
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Human CA125 carboxy terminal domain

12-MAR-2003

(first

entry)

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                                                                                                                                                                                               CC CA125 repeat domains, nucleic acids (including variants, homologues and CC degenerate versions) encoding CA125 proteins or repeat units, a vector CC comprising the nucleic acid, a cultured cell comprising the vector, a CC method of expressing CA125 antigen in a cell, the amino acid sequences of Ct the CA125 repeat units (or their variants, fragments or sequences of Ct the CA125 repeat units (or their variants, fragments or sequences of cepitope in the receptor-binding domain of CA125 protein, a diagnostic for CC detecting and monitoring the presence of CA125 antigen (comprising CC recombinant CA125 having at least one repeat unit of the CA125 repeat CC disease or CA125 antigen levels or at risk of developing a CC disease or disease or currence associated with elevated CA125 antigen levels (comprising recombinant CA125 repeat domains including epitope binding sites) and an antisense oligonucleotide that inhibits the CC expression of CA125. The CA125 molecule, particularly the multiple repeat domains are useful as a gold standard for detecting and monitoring the presence of CA125 antigen, which can be used for diagnosing, monitoring CC is expressed. The molecules are also useful for developing a vaccine CC against cancer. The present sequence is a CA125 repeat protein
                                                                                                           Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       terminal domain comprises 5 genomic exons, the amino terminal extension comprises 4 genomic exons, each repeat unit comprises 5 genomic exons and the carboxy terminal domain comprises a transmembrane anchor with a short cytoplasmic domain, and further comprises 9 genomic exons. The gene for CA125 is located on human chromosome 19q 13 2. Also included are isolated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          New CA125 molecules, useful as a gold standard for detecting and monitoring the presence of CA125 antigen which can be used for diagnosing, monitoring or treating patients with cancer or for developing
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 1; Fig
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             O'brien
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Homo
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ovarian cancer;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Human; CA125; protein repeat; chromosome 19q 13.2; amino terminal domain; amino terminal extension; carboxy terminal domain; vaccine; cancer;
                                                                                                                                                                     Sequence 284
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       27-SEP-2001;
21-DEC-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     12-APR-2002; 2002WO-US011734.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24-OCT-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              WO200283866-A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (UYAR-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-APR-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             19-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        2003-093013/08
                 180
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              terminal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       vention relates to a CA125 protein comprising: (a) an extracellular terminal domain; (b) an amino terminal extension; (c) a multiple domain; and (d) a carboxy terminal domain. The extracellular amino
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   UNIV ARKANSAS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             'n,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          against cancer.
                                                                                                           Similarity
                                                 DRVAIYEEFLRMTRNGTQLQNFTLDRSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Beard J, Underwood
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ; 2001US-0284175P.
; 2001US-0299380P.
; 2001US-00965738.
; 2001US-0345180P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    9b; 694pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          carcinoma
                                                                                                         100.0%;
                                                                                   Score 141; DB o;
Pred. No. 1.1e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ۲,
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                                                                                       0
                                                                                       Gaps
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RESULT 12
ABB31025
ID ABB31
XX ABB31025
AC ABB31
XX AMINO
XX Human
XX Human
XX Homo
XX
ADAO8747
ID ADAO
XX
AC ADAO
XX
O6-N
XX
DT O6-N
XX
DE Huma
XX
XX
KW huma
XX
OS Homc
                                                                                                                                                                                                                                                                                                                                                   RESULT 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local :
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This invention relates to polypeptides comprising an immunogenic portion of an ovarian carcinoma protein which acts as an immunostimulant and is cytostatic. The polypeptides, polynucleotides, antibodies, fusion proteins, T cell populations and antigen presenting cells that express the polypeptides are useful for stimulating an immune response in a patient and treating ovarian cancer. This sequence represents protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Polypeptides comprising an immunogenic portion of an ovarian carcinoma protein or its variants, useful for stimulating an immune response in patient and treating ovarian cancer.
                                                  human; gene therapy; ovarian cancer; cancer
                                                                                                                    Human 0772P
                                                                                                                                                                            06-NOV-2003
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-JUL-2000; 2000US-00617747.
10-AUG-2000; 2000US-00636801.
20-SEP-2000; 2000US-00667857.
04-ARR-2001; 2001US-00827271.
18-JUN-2001; 2001US-00884441.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence 318 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Claim 3; Page 399-400; 408pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 2002-164781/21.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ABP31025;
                                                                                                                                                                                                                                                                                             ADA08747
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            17-JUL-2001; 2001WO-US022635
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Amino acid sequence of the 3' constant region of 0772P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         02-JUL-2002
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ABP31025 standard; protein; 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           related to the invention
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-JAN-2002.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (CORI-) CORIXA CORP.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           immunostimulant; cytostatic; cancer; ovarian carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         JL, King
, Vedvick
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                                                                                                                             standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                      DRVAIYEEFLRMTRNGTQLQNFTLDRSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               DRVAIYEEFLRMTRNGTQLONFTLDRSS 28
                                                                                                              constant region consensus sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Conservative
                                                                                                                                                                            (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TS,
                                                                                                                                                                                                                                                                                       protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               100.0%;
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Carter D,
                                                                                                                                                                                                                                                                                             318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 141; DB 5;
Pred. No. 1.3e-13;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Fling SP,
Hill P, A
                                                                                                                                                                                                                                                                                                                                                                                                                                         241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            P, Retter MW, Albone E;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 318;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       0
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RESULT 14
ADF09090
ID ADF09
XX ADF09
XX ADF09
XX ADF09
XX Secre
XX Secre
XX Gene
KW Gene
KW Breas
KW Breas
KW Breas
KW Gene
XX Homo
XX Homo
PN US200
PN 03-Ju
                                                                                                                                                                                                                                                                                                                                        밁
                                                                                                                                                                                                                                                                S
                                                                                                                                                                                                                                                                                            Matches
                                                                                                                                                                                                                                                                                                     Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                    The invention relates to an isolated 0772P polypeptide, which has the structure fully defined in the specification. The composition containing the polypeptides, polynucleotides, fusion proteins, antibodies, T-cells or antigen presenting cells are useful for stimulating an immune response and treating ovarian cancer. Detecting the presence of the polynucleotides and polypeptides is useful for diagnosing cancer. Ovarian carcinoma cDNAs and protein cDNAs were identified using microarray technology. The present sequence represents a human ovarian carcinoma
                                                                                        gene th
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         New isolated O772P polypeptides and polynucleotides, useful in therapy, particularly for treating or diagnosing cancer, e.g. \epsilon
                               US2003124140-A1
                                                                            secreted
                                                                                                                      Secreted
                                                                                                                                            12-FEB-2004
                                                                                                                                                                   ADF09090
                                                                                                                                                                                        ADF09090 standard;
                                                                                                                                                                                                                                                                                                                                        Sequence 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Reed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mitcham
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (FLIN/)
(RETT/)
(FANG/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          18-JUN-2001; 2001US-00884441.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               17-JUL-2001; 2001US-00907969.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15-MAY-2003
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (CART/)
(HILL/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (ALBO/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (REED/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (KING/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (MITC/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       VEDV/)
                                                                                              therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SG,
                                                                                                                                                                                                                                                214
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KING G E.
ALGATE P.A.
PLING S P.
PLING S P.
RETTER M W.
PANGER G R.
REED S G.
VEDVICK T S.
CARTER D.
HILL P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    JL, King
, Vedvick
                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ALBONE E.
                                                                                                                     ovarian
                                                                                                                                                                                                                                             DRVAIYEEFLRMTRNGTQLQNFTLDRSS 241
                                                                                                                                                                                                                                                                     DRVAIYEEFLRMTRNGTQLQNFTLDRSS 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQ ID NO 594; 371pp; English.
                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                            (first
                                                                          protein therapy; vaccine; antibody inhibition;
; restorative therapy; diagnostic agent; immunc
ian carcinoma antigen.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ūĽ.
                                                                                                                     carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TS,
                                                                                                                                                                                       protein;
                                                                                                                                            entry)
                                                                                                                                                                                                                                                                                                     100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Algate PA,
Carter D,
                                                                                                                     antigen segid 594.
                                                                                                                                                                                         318
                                                                                                                                                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                     Score 141; DB 7;
Pred. No. 1.3e-13;
                                                                                                                                                                                        ₽
                                                                                                                                                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Fling SP, Rett
Hill P, Albone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Retter MW,
                                                                                                                                                                                                                                                                                                              Length 318;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             cancer, e.g. ovarian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Ħ
                                                                                     immunoassay;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fanger
                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        gene
                                                                                                                                                                                                                                                                                         Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GR;
                                                                                                                                                                                                                                                                                           0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention describes nucleic acids (I) and the polypeptides (II) they CC encode. The nucleic acids (I) may be used for preventing, diagnosing and CC treating diseases related to their aberrant expression i.e. breast CC cancers. For example, (I) and (II) may be used to treat disorders CC associated with decreased expression by rectifying mutations or deletions CC in a patient's genome that affect the activity of (II) by expressing CC inactive proteins or to supplement the patients own production of (II). CC Additionally, (I) may be used to produce (II), by inserting (I) into a CC complementary sequences may also be used as DNA probes in diagnostic CC cassays to detect and quantitate the presence of similar nucleic acids in CC cassays to detect and quantitate the presence of similar nucleic acids in CC cantibodies against (II) and in assays to identify modulators of (II) and continuous continuous caseave to activity. The anti-(II) antibodies, agonists and CC cantagonists may be used to regulate expression and activity and as CC diagnostic agents for detecting the presence of (II) in samples (e.g. by immunoassay). This sequences represents a secreted ovarian carrinoma.
                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                             Query Match
            Human; ovarian cancer antigen; proliferative disorder; cancer; tumour; respiratory system disorder; asthma; haematopoietic disorder; skin aging; immune system disorder; AIDS; skin disorder; autoimmune disease; allergy; rheumatoid arthritis; inflammation; neurological disorder; septic shock; Alzheimer's disease; Parkinson's disease; diabetes; angiogenic disorder; atherosclerosis; cardiovascular disorder; gastrointestinal disorder;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Oncogenic nucleic acids useful treatment of breast cancer.
                                                                                                                             Human
                                                                                                                                                            03-JAN-2002
                                                                                                                                                                                                                            AAE12631
                                                                                                                                                                                                                                                                                                                                                                                                                                              Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 16; SEQ ID NO 594; 399pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   N-PSDB;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 2003-897152/82.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   04-APR-2001;
18-JUN-2001;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     20-SEP-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  24-SEP-1999;
17-JUL-2000;
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17-DEC-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              immunoassay).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (CORI-)
                                                                                                                                                                                                                                                                                                               214
                                                                                                                             gene 1 encoded secreted protein fragment,
                                                                                                                                                                                                                                                                                                                                 1 DRVAIYEEFLRMTRNGTQLQNFTLDRSS
                                                                                                                                                                                                                                                                                                                                                                             l Similarity
28; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    cs,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORIXA CORP
                                                                                                                                                                                                                                                                                                                                                                                                                                              318
                                                                                                                                                                                                                            standard; protein; 367
                                                                                                                                                                                                                                                                                                                DRVAIYEEFLRMTRNGTQLQNFTLDRSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                99US-00338933.
99US-00404879.
2000US-00617747.
2000US-00636801.
2000US-00667857.
                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Retter MW,
                                                                                                                                                                                                                                                                                                                                                                                                                                              ΑA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     2001US-00907969
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2001US-00884441.
                                                                                                                                                              (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This sequence represents a secreted
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epithelial cell proliferation; transplantation; chemotaxis; infection;

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CC AAD20618-AAD20624 represent cDNAs corresponding to 7 human ovarian and CC ovarian cancer associated protein (collectively known as ovarian cancer CC antigens) genes, and AAE12623-AAE12629 represent the proteins they CC encode. AAE12630-AAE12638 represent human ovarian cancer antigenic CC fragments or variants. Ovarian cancer antigens and their corresponding CC DNAs are used in the prevention, diagnosis and treatment of diseases CC associated with their inappropriate expression. These disorders include CC proliferative disorders, cancer, tumours, respiratory system disorders, Ca sthma, haemacopoietic disorders, diseases of the immune system, AIDS, CC skin disorders, autoimmune diseases (e.g., rheumatoid arthritis), CC inflammation, allergies, neurological disorders (e.g., Alzheimer's CC disease, Parkinson's disease), septic shock, diabetes, atherosclerosis, CC cardiovascular disorders, angiogenic disorders and infections. The CC proteins can also be used to aid wound healing and epithelial cell C proteins can also be used to aid wound healing and epithelial cell C proteins can also be used to aid wound healing and epithelial cell C proliferation, to identify their cognate ligands or binding CC spatrners, in chemotaxis and can be used as a food additive. Antibodies Specific for a protein of the invention can be used in alleviating CC specific for a protein of the invention can be used in alleviating CC specific for a protein of the invention can be used in diagnostic CC immunoassasys e.g., enzyme linked immunosorbent assay (ELISA). The DNA of CC the invention is used in gene therapy. The present sequence represents a CC the invention cancer antigenic fragment of the invention
                                                                                                                                                                    Matches
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Best Local 9
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gene
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page 9; 427pp; English.
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23-AUG-2000; 2000US-0227009P.
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                                                                                                                                                                                                                                                                                                                            Sequence 367 AA;
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                                                                                                                                                                                                  Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  additive; wound healing; endocrine disorder; kidney disorder; therapy; cytostatic.
                                                      1 DRVAIYEEFLRMTRNGTQLQNFTLDRSS 28
                                                                                                                                                            ch 100.0%; Score 141; DB 4; Similarity 100.0%; Pred. No. 1.5e-13; 28; Conservative 0; Mismatches 0;
DRVAIYEEFLRMTRNGTQLQNFTLDRSS 361
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Rosen CA;
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Search completed: October 27, 2005, 18:44:25 Job time : 96.893 secs

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US-09-404-879A-389
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US-09-667-857-318
US-09-67-857-318
US-09-67-857-388
US-09-66-047-338
US-09-134-001C-3921
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3276, Ap
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                                                                                       PATENT NO. 6699664

GENERAL INFORMATION:
APPLICANT: Mitcham, Jennifer L.
APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon B.
APPLICANT: Algate, Paul A.
APPLICANT: Algate, Paul A.
APPLICANT: Faing, Steven P.
APPLICANT: Fanger, Gary Richard
APPLICANT: Feed, Steven G.
APPLICANT: Wedvick, Thomas S.
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THI
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1 DRVAIYEEFLRMTRNGTQLQNFTLDRSS 28

US-09-667-857-390

Sequence

390, Application US/09667857

CURRENT APPLICATION NUMBER: US/09/667,857 CURRENT FILING DATE: 2000-09-20 NUMBER OF SEQ ID NOS: 455

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Query M Best Lo Matches	RESULT 1 US-09-404-879A-390 Sequence 390, Appleant No. 64685 GENERAL INFORMAT: APPLICANT: Mit APPLICANT: Mit APPLICANT: Alg TITLE OF INVENT FILE REFERENCE: CURRENT APPLICA C		22866666666666666666666666666666666666
atch cal 2	ULT 1 09-404-879A-390 equence 390, Appatent No. 64685 ENERAL INFORMAT APPLICANT: Mit- APPLICANT: Kin- APPLICANT: Alg- TITLE OF INVENT TITLE OF INVENT FILE REFERENCE: CURRENT APPLICA CURRENT FILING INUMBER OF SEQ II NUMBER OF SEQ II SOFTWARE: Fast: EQ ID NO 390 LENGTH: 438 TYPE: PRT ORGANISM: Homo 09-404-879A-390		4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
100 Similarity 100 8; Conservative	SULT 1 -09-404-879A-390 -09-404-879A-390 Sequence 390, Application US/09404879A Batent No. 6468546 GENERAL INFORMATION: APPLICANT: Mitcham, Jennifer L. APPLICANT: King, Gordon E. APPLICANT: Algate, Paul A. TITLE OF INVENTION: COMPOSITIONS AND TITLE OF INVENTION: DIAGNOSIS OF OVA FILE REFERENCE: 210121.462C2 CURRENT APPLICATION NUMBER: US/09/404 CURRENT FILING DATE: 1999-09-24 NUMBER OF SEQ ID NOS: 393 SOFTWARE: FastSEQ for Windows Versio LENGTH: 438 TYPE: PRT ORGANISM: Homo sapiens -09-404-879A-390		31 31 31 31 31 31 31 31 31 31 31 31 31
100.0%; 100.0%; rative	ication US/09404 N: N: N: Gordon E. Gordon E. COMPOSITIONS N: COMPOSITIONS NN: DIAGNOSIS OF 210121.462C2 CON NUMBER: US/09 TTE: 1999-09-24 NOS: 393 Q for Windows Ve lapiens		4471 4771 4771 4771 4771 4771 4771 4771
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Score 141; Pred. No. 1. 0; Mismatches	ULT 1 09-404-879A-390 equence 390, Application US/09404879A atent No. 6468546 ENERAL INFORMATION: APPLICANT: Mitcham, Jennifer L. APPLICANT: King, Gordon E. APPLICANT: Algate, Paul A. APPLICANT: Algate, Paul A. TITLE OF INVENTION: COMPOSITIONS AND METHODS TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CAN FILE REFERENCE: 210121.462C2 CURRENT APPLICATION NUMBER: US/09/404,879A CURRENT FILING DATE: 1999-09-24 NUMBER OF SEQ ID NOS: 393 SOFTWARE: FastSEQ for Windows Version 3.0 EQ ID NO 390 LENGTH: 438 TYPE: PRT ORGANISM: Homo sapiens 09-404-879A-390	ALIGNMENTS	US-08-176-427B-1 US-08-356-066A-3 US-08-460-900C-3 US-08-757-230A-8 US-08-757-230A-8 US-08-957-874-34 US-08-957-874-34 US-09-325-256-26 US-09-325-256-34 US-09-448-188-34 US-09-448-188-34 US-09-704-917-20 US-09-151-29-34 US-09-151-29-34 US-09-151-29-34 US-09-151-29-34 US-09-151-29-34 US-09-151-29-34 US-09-151-29-34 US-09-151-29-34 US-09-151-29-34
1; DB 4; . 1.1e-14; ches 0;	ODS FOR CANCER	NTS	176-427B-11 356-060A-34 450-900C-34 757-230A-8 757-230A-8 954-69B-34 957-874-34 957-874-34 957-874-34 954-128-34 9448-128-34 954-717-20 954-740-34 954-740-34 948-569A-10
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98			Appl Appl Appl Appl Appl Appl Appl Appl
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APPLICANT: Mitcham, USAND APPLICANT: King, Gordon E.
APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C2
CURRENT APPLICATION NUMBER: US/09/404,879A
CURRENT FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 393
SOFTWARE: PastSEQ for Windows Version 3.0
                               APPLICANT: Retter, Marc W.
APPLICANT: Panger, Gary Richard
APPLICANT: Reed, Steven G.
APPLICANT: Reed, Steven G.
APPLICANT: Vedvick, Thomas S.
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C5
CURRENT APPLICATION NUMBER: US/09/667,857
CURRENT FILING DATE: 2000-09-20
NUMBER OF SEQ ID NOS: 455
SOCTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 389
LENGTH: 833
TYPE: PRT
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US-09-404-879A-389
US-09-404-879A-389
Patent No. 6468546
Patent No. 6468546
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US-09-667-857-389
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-404-879A-389
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; ORGANISM: Homo sapiens US-09-667-857-389
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US-09-667-857-390
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Fling, Steven P.
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GENERAL INFORMATION:
APPLICANT: Mitcham, Jennifer Lynn
APPLICANT: Mitcham, Jennifer Lynn
APPLICANT: King, Gordon E.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR
TITLE OF INVENTION: OVARIAN CANCER
FILE REFERENCE: 210121.462C1
CURRENT APPLICATION NUMBER: US/09/338,933
CURRENT FILING DATE: 1999-06-23
CURRENT FILING DATE: 1999-06-23
NUMBER OF SEQ ID NOS: 312
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 312
LENGTH: 914
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US-09-667-857-312
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; TYPE: PRT
; ORGANISM: Homo sapien
US-09-404-879A-312
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APPLICANT: King, Gordon E.
APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 20121.462C2
CURRENT APPLICATION NUMBER: US/09/404,879A
CURRENT FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 393
SOFTWARE: FASTSEQ for Windows Version 3.0
SEQ ID NO 312
LENGTH: 914
Sequence 312, Application US/09667857 Patent No. 6699664 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 312, Application US/09404879A Patent No. 6468546 GENERAL INFORMATION:
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Best Local Similarity
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100.0%; Pred. No. 2.6e-14;
rative 0; Mismatches 0;
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Pred. No. 2.6e-14;
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APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary Richard
APPLICANT: Reed, Steven G.
APPLICANT: Vedvick, Thomas S.
APPLICANT: COMPOSITIONS AND METHODS FOR THE THERAPY AND TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
CURRENT APPLICATION NUMBER: US/09/667,857
CURRENT FILING DATE: 2000-09-20
NUMBER OF SEQ ID NOS: 455
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 312
LENGTH: 914
TYPE: PRT
ORGANISM: Homo sapien
GENERAL INFORMATION:
APPLICANT: Mitcham, Jennifer L.
APPLICANT: King, Gordon E.
APPLICANT: Algate, Paul A.
APPLICANT: Fling, Steven P.
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary Richard
APPLICANT: Reed, Steven G.
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APPLICANT: King, Gordon E.
APPLICANT: COMPOSITIONS AND METHODS FOR THE TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER FILE REFERENCE: 210121.462C2
CURRENT APPLICATION NUMBER: US/09/404,879A
CURRENT FILING DATE: 1999-09-24
NUMBER OF SEQ ID NOS: 393
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                                                                                                                                                                               Sequence 388, Application US/09667857 Patent No. 6699664
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Best Local Similarity
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LENGTH: 772
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King, Gordon E.
Thate, Paul A.
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Pred. No. 1.6;
6; Mismatches 1
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APPLICANT: Vedvick, Thomas S.

APPLICANT: Carter, Darrick
ITITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
ITITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C5
CURRENT APPLICATION NUMBER: US/09/667,857
CURRENT FILING DATE: 2000-09-20
NUMBER OF SEQ ID NOS: 455
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 388
LENGTH: 772
LENGTH: 772
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                              RESULT 11
US-09-134-001C-3921
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US-09-710-279-332
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GENERAL INFORMATION:
APPLICANT: Lynn Doucette-Stamm et al
APPLICANT: Lynn Doucette-Stamm et al
TITLE OF INVENTION: NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO STAPHYLOCOCCUS
TITLE OF INVENTION: EPIDERMIDIS FOR DIAGNOSTICS AND THERAPEUTICS
FILE REFERENCE: GTC-007
CURRENT APPLICATION NUMBER: US/09/134,001C
CURRENT FILING DATE: 1998-08-13
PRIOR APPLICATION NUMBER: US 60/064,964
PRIOR APPLICATION NUMBER: US 60/064,964
PRIOR FILING DATE: 1997-11-08
PRIOR FILING DATE: 1997-08-14
NUMBER OF SEQ ID NOS: 5674
SEQ ID NO 3921
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Best Local S
Matches 12
                                                                                                                                                                                                                                                                                                 Sequence 3921, Application US/09134001C Patent No. 6380370
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 332
LENGTH: 263
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APPLICANT: KIMMERLY, WILLIAM JOHN
TITLE OF INVENTION: STAPHYLOCOCCUS EPIDERMIDIS NUCLEIC ACIDS AND PROTEINS
FILE REFERENCE: PU3480US
CURRENT APPLICATION NUMBER: US/09/710,279
CURRENT FILING DATE: 2000-11-09
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Query Match
Best Local Similarity 37.9%; Pred. No. 7.1;
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PRIOR APPLICATION NUMBER: 60/164,258
PRIOR FILING DATE: 1999-11-09
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  OTHER INFORMATION: Description of Artificial Sequence: synthetic OTHER INFORMATION: amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FEATURE:
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; Pred. No. 1.6;
6; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                          61
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                                                                                                                                                        US-09-066-047-3
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GENERAL INFORMATION:
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                                                                             Matches
                                                                                                                 Query Match
                                                                                           Best Local
                                                                                                                                                                                                                                                                                                                               INFORMATION FOR SEQ ID NO: 3: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                             MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/066,047A
FILING DATE: 24-Apr-1998
CLASSIFICATION CUNEBER: US/09/066,047A
PPLICATION DATA:
APPLICATION UDATA:
TELEGOMUNICATION UDATA:

NAME: Supecko, Colleen
REGISTRATION NUMBER: 39,850
REFERENCE/DOCKET NUMBER: 106.941.156
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 526-5000
NECOMMUNICATION INFORMATION:
TELEPHONE: (617) 526-5000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    BELTZ, Gerald A.

COUGHLIN, Richard T.

COUGHLIN, RICHARD T.

ROTEINS, AND METHODS

USE OF GRANULOCYTIC BRHLICHIA
                                                                                                                                                                    HYPOTHETICAL: NO
ANTI-SENSE: NO
SEQUENCE DESCRIPTION: SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 02109
COMPUTER READABLE FORM:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                               TOPOLOGY: linear MOLECULE TYPE: DNA (9)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: MURPHY, Cheryl STOREY, James
380 VAMLEQLIKIYRDGIDLENNTL 401
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                                                                         Similarity 9; Conserv
                  VAIYEEFLRMTRNGTQLQNFTL 24
                                                                                                                                                                                                                                                                    TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STATE: Massachusetts
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STREET: 60 State Street
                                                                                                                                                                                                                                                                                                           LENGTH: 514 amino acids
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                                                                     7; Mismatches
                                                                                         Score 47; DB
Pred. No. 28;
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                                                                                                           Length 514;
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US-09-107-532A-5481
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                                                                                                                  Sequence 5481, Application US/09107532A
PAtent No. 6583375
PATENT INFORMATION:
APPLICANT: Lynn A Doucette-Stamm
TITLE OF INVENTION: NUCLEIC ACID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQ ID NOS: 98
SOFTWARE: PatentIn version 3.0
SEQ ID NO 68
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SEQ ID NO 12906
LENGTH: 2088
TYPE: PRT
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Best Local Similarity
Matches 10; Conserv
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APPLICANT: Hinkle, Gregory J.
APPLICANT: Slater, Steven C.
APPLICANT: Wiegand, Roger C.
TITLE OF INVENTION: Myxococcus xanthus Genome Sequences and Uses Thereof FILE REFERENCE: 38-10(15849)8
CURRENT APPLICATION NUMBER: US/09/902,540
CURRENT FILING DATE: 2001-07-10
PRIOR APPLICATION NUMBER: 60/217,883
PRIOR FILING DATE: 2000-07-10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: MCHENTY, Charles
TITLE OF INVENTION: NOVEL THERMOPHILIC POI
FILE REFERENCE: 1794.003004
CURRENT APPLICATION NUMBER: US/09/818,780
CURRENT FILLING DATE: 2001-03-28
PRIOR APPLICATION NUMBER: US 60/192,736
PRIOR FILING DATE: 2000-03-28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LENGTH: 693
                                                                                                                                                                                                                                                                                                                                                                             a 33.0%; Score 46.5; Local Similarity 46.2%; Pred. No. 49; es 12; Conservative
                                   NUMBER OF SEQUENCES: 7310
CORRESPONDENCE ADDRESS:
ADDRESSEE: GENOME THERAPEUTICS CORPORATION
                                                                                                                                                                                                                                                                                                         497 DRIENVEELLRAAKEAEDLODF-LDR 521
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STREET: 100 Beaver Street CITY: Waltham
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Pred. No. 1.5e+02;
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                                                                                               and David Bush
AND AMINO ACID SEQUENCES RELATING TO
FAECIUM FOR DIAGNOSTICS AND THERAPEU
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COMPUTER: Massachusetts
COUPTRY, USA
ZIP: 0258A
ZIP: 02
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Result
No.
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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             110
110
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seq length: 2000000000
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Match Length DB
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: /cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*
: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
: /cgn2_6/ptodata/2/pubpaa/US06_NEW_PUB.pep:*
: /cgn2_6/ptodata/2/pubpaa/US07_NEW_PUB.pep:*
: /cgn2_6/ptodata/2/pubpaa/US08_PUBCOMB.pep:*
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: /cgn2_6/ptodata/2/pubpaa/US10A_PUBCOMB.pep:*
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: /cgn2_6/ptodata/2/pubpaa/US1A_PUBCOMB.pep:*
: /cgn2_6/ptodata/2/pubpaa/US1A_PUBCOMB.pep:*
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                        15 US-10-612-090-18

15 US-10-612-090-2

US-10-612-090-13

15 US-10-383-368-4

US-09-884-441-489

US-09-987-489-489

US-09-884-441-488

US-10-198-053-489

US-10-198-053-489

US-09-884-441-488

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Sequence 18, Appli
Sequence 13, Appli
Sequence 13, Appli
Sequence 48, Appli
Sequence 489, App
Sequence 489, App
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Sequence 488, App
Sequence 488, App
Sequence 488, App
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ALIGNMENTS

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RESULT 2
US-10-612-090-2
; Sequence 2, Application US/10612090
; Publication No. US20040057952A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                          ; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 18
; LENGTH: 28
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-612-090-18
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, Sequence 18, Application US/10612090
; Publication No. US20040057952A1
; GENERAL INFORMATION:
                                                                                                                                                                                                                                                Query Match 100.0%; Score 141; DB 15; Best Local Similarity 100.0%; Pred. No. 9.2e-15; Matches 28; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT: ImmunoGen, Inc.
TITLE OF INVENTION: ANTIBODIES TO NON-SHED MUC1 AND MUC16, AND USES THEREOF
FILE REFERENCE: A8340
CURRENT APPLICATION NUMBER: US/10/612,090
CURRENT FILING DATE: 2003-07-03
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PRIOR FILING DATE: 2002-07-03
NUMBER OF SEQ ID NOS: 33
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RESULT 3
US-10-612-090-13
Sequence 13, Application US/10612090
Publication No. US20040057952A1
Publication No. US20040057952A1
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US-10-383-368-4
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-612-090-2
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                                                                                                                                                                                  Sequence 4, Application US/10383368 Publication No. US20040002091A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PRIOR APPLICATION NUMBER: US 60/393,094
PRIOR FILING DATE: 2002-07-03
NUMBER OF SEQ ID NOS: 33
SOFTWARE: PatentIn version 3.2
SEQ ID NO 13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION: APPLICANT: ImmunoGen,
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TITLE OF INVENTION: ANTIBODIES TO NON-SHED MUC1 AND MUC16, AND USES THEREOF FILE REFERENCE: A8340
CURRENT APPLICATION NUMBER: US/10/612,090
CURRENT FILING DATE: 2003-07-03
FRIOR APPLICATION NUMBER: US 60/393,094
PRIOR PILING DATE: 2002-07-03
NUMBER OF SEQ ID NOS: 33
SOFTWARE: PatentIn version 3.2
APPLICANT: Young, Paul E.
APPLICANT: Ebner, Reinhard
APPLICANT: Strovel, Jeffrey W.
TITLE OF INVENTION: Cancer-Linked Gene as Target
FILE REFERENCE: 689290-123
CURRENT APPLICATION NUMBER: US/10/383,368
CURRENT FILING DATE: 2003-03-07
PRIOR APPLICATION NUMBER: US 60/362,527
PRIOR FILING DATE: 2002-03-07
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FILE REFERENCE: A8340
CURRENT APPLICATION NUMBER: US/10/612,090
CURRENT FILING DATE: 2003-07-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEATURE:
OTHER INFORMATION: Fusion protein
FEATURE:
NAME/KEY: MISC_FEATURE
LOCATION: (1)...(1)
OTHER INFORMATION: Glutathione S-transferase fusion site
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TYPE: PRT
ORGANISM: Artificial Sequence
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al Similarity 100.0%; F
28; Conservative 0;
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Similarity 100.0%;
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Pred. No. 4.4e-14;
Mismatches 0;
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APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C7
CURRENT APPLICATION NUMBER: US/09/884,441
CURRENT FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 489
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 489
                                             APPLICANT: Albone, Earl
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C8
CURRENT APPLICATION NUMBER: US/09/907,969
CURRENT FILING DATE: 2001-07-17
NUMBER OF SEQ ID NOS: 596
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 489
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SOFTWARE: PatentIn vers
SEQ ID NO 4
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Best Local Similarity
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APPLICANT:
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ORGANISM: Homo sapiens
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                                ENGTH: 178
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Local Similarity 100.0%; Pred. No. 8e-14;
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                                                                                                                                                                                                              Vedvick, Thomas S.
Carter, Darrick
Hill, Paul
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Fanger, Gary Richard
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Algate, Paul A.
Fling, Steven P.
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Pred. No. 7.7e-14;
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US-10-198-053-489
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                                                                                                                                                                                                                    TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C11
CURRENT APPLICATION NUMBER: US/10/860,790
CURRENT FILING DATE: 2004-06-02
NUMBER OF SEQ ID NOS: 624
SOFTWARE: FASUSEQ for Windows Version 4.0
SOFTWARE: FASUSEQ for Windows Version 4.0
SOFTWARE: FASUSEQ FOR WINDOWS VERSION 4.0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CURRENT APPLICATION NUMBER: US/10/198,053
CURRENT FILING DATE: 2002-07-17
NUMBER OF SEQ ID NOS: 624
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 489
LENGTH: 178
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Publication No. US20030124140A1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Bangur, Chaitanya S.
APPLICANT: Retter, Marc W.
APPLICANT: Fanger, Gary R.
APPLICANT: Hill, Paul
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                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Bangur, Chaitanya S. APPLICANT: Retter, Marc W.
                                                                                                                                                                LENGTH: 178
TYPE: PRT
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TYPE:
                                                                         Local Similarity nes 28; Conserv
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129 DRVAIYEEFLRMTRNGTQLQNFTLDRSS 156
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                                   DRVAIYEEFLRMTRNGTQLQNFTLDRSS 28
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                                                                         Conservative
                                                                                         100.0%; Score 141; DB 1 100.0%; Pred. No. 8e-14;
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                                                                                                         DB 17;
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CURRENT APPLICATION UNMBER: US/09/907,969
CURRENT FILING DATE: 2001-07-17
NUMBER OF SEQ ID NOS: 596
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 488
LENGTH: 233
TYPE: PRT
ORGANISM: Homo sapiens
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                                                                         Query Match
Best Local S
Matches 28
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Patent NO. US20020119158A1
GENERAL INFORMATION:
APPLICANT: Algate, Paul A.
APPLICANT: Carter, Darrick
APPLICANT: Carter, Darrick
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY AND
TITLE OF INVENTION: DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C7
CURRENT APPLICATION NUMBER: US/09/884,441
CURRENT FILING DATE: 2001-06-18
NUMBER OF SEQ ID NOS: 489
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SEQ ID NO 488
LENGTH: 233
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                                                                                                                                                                                                                                                                                                                             APPLICANT: Albone, Earl
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C8
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129 DRVAIYEEFLRMTRNGTQLQNFTLDRSS 156
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                              1 DRVAIYEEFLRMTRNGTQLQNFTLDRSS 28
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                                                                           l Similarity
28; Conserv
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Carter, Darrick
Hill, Paul
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Fanger, Gary Richard
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Fling, Steven P.
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                                                                             Conservative
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                                                                                           100.0%; Score 141; DB 10; 100.0%; Pred. No. 1.1e-13;
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                                                                         Mismatches
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RESULT 11
US-10-198-053-488
US-10-198-053-488
; Sequence 488, Application US/10198053
; Publication No. US20030124140A1
; GENERAL INFORMATION:

APPLICANT: Bangur, Chaitanya S.

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RESULT 13
US-09-965-738-300
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-860-790-488
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US-10-860-790-488
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US-10-198-053-488
Sequence 300, Application US/09965738
Publication No. US20030143667A1

GENERAL INFORMATION:
APPLICANT: O'BITION: Timothy
TITLE OF INVENTION: Repeat Sequences of the CA125 Gene and Their Use for Diagnostic TITLE OF INVENTION: Therapeutic Interventions
FILE REFERENCE: 40715-258841

FURRENT APPLICATION NUMBER: US/09/965,738
CURRENT APPLICATION NUMBER: US/09/965,738
CURRENT FILING DATE: 2001-09-27
PRIOR APPLICATION NUMBER: US 60/284,175
PRIOR APPLICATION NUMBER: US 60/284,175
PRIOR PRILING DATE: 2001-04-17
NUMBER OF SEQ ID NOS: 306
SOFTWARE: Patentin version 3.0

SEQ ID NO 300
LENGTH: 284
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TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN
FILE REFERENCE: 210121.462C11
CURRENT APPLICATION NUMBER: US/10/860,790
CURRENT FILING DATE: 2004-06-02
NUMBER OF SEQ ID NOS: 624
SOFTWARE: FASUSEQ for Windows Version 4.0
SEQ ID NO 488
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TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C9
CURRENT APPLICATION NUMBER: US/10/198,053
CURRENT FILING DATE: 2002-07-17
NUMBER OF SEQ ID NOS: 624
SOFTWARE: FASTSEQ for Windows Version 4.0
SEQ ID NO 488
LENGTH: 233
TYPE: PRT
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APPLICANT:
APPLICANT:
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Similarity 100.0%;
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Similarity 100.0%; Pred. No. 1.1e-13;
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Fanger, Gary R.
Hill, Paul
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Pred. No. 1.1e-13;
D; Mismatches 0;
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N CANCER
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US-10-198-053-594
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local 9
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Publication No.
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APPLICANT: Carter, DALLANT: Hill, Paul
APPLICANT: Hill, Paul
APPLICANT: Albone, Barl
TITLE OF INVENTION: COMPOSITIONS AND METHODS FOR THE THERAPY
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN CANCER
FILE REFERENCE: 210121.462C8
CURRENT APPLICATION NUMBER: US/09/907,969
CURRENT FILING DATE: 2001-07-17
NUMBER OF SEQ ID NOS: 596
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 594
LENGTH: 318
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ; FEATURE:
; NAME/KEY: variant
; LOCATION: 136,248,268
; OTHER INFORMATION: Xaa = Any amino acid
US-09-907-969-594
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity lvv.
"---hes 28; Conservative
TITLE OF INVENTION: COMPOSITIONS AND METHODS F
TITLE OF INVENTION: AND DIAGNOSIS OF OVARIAN
FILE REFERENCE: 210121.462C9
CURRENT APPLICATION NUMBER: US/10/198,053
CURRENT FILING DATE: 2002-07-17
NUMBER OF SEQ ID NOS: 624
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 594
LENGTH: 318
                                                                                                                                                                                                                                                                                                 Sequence 594, Application US/10198053 Publication No. US20030124140A1
                                                                                                                                                                                          APPLICANT: Bangur, Chaitanya S. APPLICANT: Retter, Marc W. APPLICANT: Fanger, Gary R. APPLICANT: Hill, Paul
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        / Match 100.0%; Score 141; DB 10; Local Similarity 100.0%; Pred. No. 1.6e-13; les 28; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                         214 DRVAIYEEFLRMTRNGTQLQNFTLDRSS 241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      180 DRVAIYEEFLRMTRNGTQLQNFTLDRSS 207
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Vedvick, Thomas S.
Carter, Darrick
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Fanger, Gary Richard
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  King, Gordon E.
Algate, Paul A.
Fling, Steven P.
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o. US20030091580A1
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1. 10 mm

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TYPE: PRT

ORGANISM: Homo sapiens

FEATURE:

NAME/KEY: variant

LOCATION: 136,248,268

OTHER INFORMATION: Xaa = Any amino acid

US-10-198-053-594

Query Match
Best Local Similarity 100.0%; Score 141; DB 14; Length 318;

Matches 28; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Matches 28; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY

ORGANISM: Homo sapiens

100.0%; Score 141; DB 14; Length 318;

Best Local Similarity 100.0%; Pred. No. 1.6e-13;

Matches 28; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY

ORGANISM: Homo sapiens

100.0%; Score 141; DB 14; Length 318;

Best Local Similarity 100.0%; Pred. No. 1.6e-13;

Matches 28; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY

Search completed: October 27, 2005, 18:31:47

Job time : 89.6 secs
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Result No. Post-processing: Minimum Match 0% Maximum Match 100 Listing first 45 Title: Perfect score: Database Minimum Total number of hits satisfying chosen parameters: Scoring table: OM protein - protein search, using sw model Maximum on: Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution. DB B Score <u>4</u>5 46 seq length: 0 length: 2000000000 PIR 79:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:* Query Match US-10-612-090-18 141 BLOSUM62 October 27, 283416 segs, Gapop 10.0 , DRVAIYEEFLRMTRNGTQLQNFTLDRSS Copyright Length 2005, 18:13:49 ; GenCore version 5.1.6 (c) 1993 - 2005 Compugen 멂 96216763 residues Gapext 0.5 AB2868 F97644 A86433 B71846 F64669 D96580 H86296 H86296 T10938 Z1BP22 E84507 G97985 AD2312 G82670 A84902 B43332 S24234 E91178 E91178 F86024 G85726 G85726 Ħ summaries SUMMARIES 155.538 Million cell updates/sec ; Search time 17.3209 Seconds (without alignments) probable secreted calcium-dependent gene 1 protein - p hypothetical prote hypothetical prote glutamate decarbox glutamate decarbox glutamate decarbox glutamate decarbox auxin-regulated pr glutamate decarbox glutamate decarbox hypothetical prote UDP-hexose transfe UDP-hexose transfe hypothetical prote general secretory auxin-regulated pr hypothetical F309.1 prote hypothetical hypothetical protocalcium-dependent Description etical prote protein - A prote prote prote

ALIGNMENTS

Science 294, 849-852, 2001

A;Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; Maitournam, Ok, C.; Schlueter, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J.A.; Voss, H.; We A;Title: Comparative genomics of Listeria species

A;Reference number: AB1077; MUID:21537279; PMID:11679669

A;Accession: AG1271

A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-311 <GLA>
A;Residues: 1-311 <GLA>
A;Cross-references: UNIPROT:08Y6V6; GB:NC_003210; PIDN:CAC99653.1; PID:g16411004; hypothetical protein homolog lin1610 [imported] - Listeria innocua (strain Clip11262) C;Species: Listeria innocua (C;Species: Listeria innocua (C;Species: Listeria innocua (C;Species: 27-Nov-2001 #sequence_revision 27-Nov-2001 #text_change 09-Jul-2004 (C;Daccession: AI1633 (C;Accession: AI1633 (C;Accession: AI1633 (R;Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, A.; Baquero, F.; Berche, P.; Bloecker, C; Dominguez-Bernal, G.; Duchaud, E.; Durand, L.; Dussurget, O.; Entian, K.D.; Fsihi, H.; Jones, L.M.; Karst, U. RESULT 2 AI1633 Science 294, 849-852, 2001

A; Authors: Kreft, J.; Kuhn, M.; Kunst, F.; Kurapkat, G.; Madueno, E.; Maitournam, A.; Matok, C.; Schlueter, T.; Simoes, N.; Tierrez, A.; Vazquez-Boland, J.A.; Voss, H.; Wehland, A;Title: Comparative genomics of Listeria species.

A;Reference number: AB1077; MUID:21537279; PMID:11679669

A;Accession: AI1633 A;Status: preliminary A;Molecule type: DNA A;Residues: 1-311 <GLA> 밁 á A;Gene: lmo1575 C;Superfamily: 1 R;Glaser, P.; Frangeul, L.; Buchrieser, C.; Amend, .; Dominguez-Bernal, G.; Duchaud, E.; Durand, L.; D.; Jones, L.M.; Karst, U. hypothetical protein lmo1575 [imported] - Listeria monocytogenes (strain EGD-e) C;Species: Listeria monocytogenes C;Cpecies: Listeria monocytogenes C;Date: 27-Nov-2001 #sequence_revision 27-Nov-2001 #text_change 09-Jul-2004 C;Accession: AG1271 A; Experimental source: strain Matches Genetics: Query Match 181 12; Similarity DRPALYRELYELPKNIVKLSGYILONFVMDEN 212 DRVAIYEEFLRMTRN-----GTQLQNFTLDRS Mycoplasma conserved hypothetical protein Conservative 37.9**%**; 37.5**%**; EGD-e 5 Score 53.5; DI Pred. No. 1.8; 5; Mismatches 1.8; 27 멂 10; <u>ب</u> , A.; Baquero, I Dussurget, O.; Length 311; Indels MG190 F.; Berch 5 Berche, P.; tian, K.D.; Gaps Maitournam, A.; Mai Voss, H.; Wehland, 1: ; Bloecker, Fsihi, H.; GSPDB:(

transport

A;Cross-references: UNIPROT:Q92BE0; GB:AL592022; PIDN:CAC96841.1; PID:g16414097; GSPDB:GI

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C,Accession: T01989
R;Yoon, G.M.; Cho, H.S.; Liu, J.R.; Pai, H.S.
submitted to the EMBL Data Library, June 1998
A,Description: Characterization of NtCDPKI, a calcium-dependent protein kinase in Nicot. A;Reference number: Z14483
A,Accession: T01989
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         F;393-425/Domain: calmodulin repeat homology <EF1>
F;429-461/Domain: calmodulin repeat homology <EF2>
F;465-497/Domain: calmodulin repeat homology <EF3>
F;499-332/Domain: calmodulin repeat homology <EF4>
F;122/Active site: Lys #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Experimental source: strain C;Genetics:
                                                                                                                                                                                                                                               R;Kaneko, T.; Nakamura, Y.; Wolk, C.P.; Kuritz, T.; Sasamoto, S.; Watanabe, A.; Iriguch Nakazaki, N.; Shimpo, S.; Sugimoto, M.; Takazawa, M.; Yamada, M.; Yasuda, M.; Tabata, DNA Res. 8, 205-213, 2001
A;Title: Complete Genomic Sequence of the Filamentous Nitrogen-fixing Cyanobacterium An A;Reference number: AB1807; MUID:21595285; PMID:11759840
A;Accession: AD2312
                                                                                                                                                                                                                                                                                                                                                                                                                     hypothetical protein all4051 [imported] - Nostoc sp. (strain PCC 7120) C;Species: Nostoc sp. PCC 7120 A;Note: Nostoc sp. strain PCC 7120 is a synonym of Anabaena sp. strain PCC 7120 C;Date: 14-Dec-2001 #sequence_revision 14-Dec-2001 #text_change 09-Jul-2004
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       calcium-dependent protein kinase (EC 2.7.1.-) 1 - common tobacco
C;Species: Nicotiana tabacum (common tobacco)
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A;Residues: 1-540 <YOO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Status: translated from GB/EMBL/DDBJ
                                                                                                                          A;Cross-references: UNIPROT:Q8YPY9; GB:BA000019; PIDN:BAB75750.1; PID:g17133186; GSPDB
A;Experimental source: strain PCC 7120
                                                                                                                                                                         A; Molecule type: DNA
A; Residues: 1-281 < KUR>
                                                                                                                                                                                                                          A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                 Accession: AD2312
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Superfamily: calcium-dependent protein kinase; calmodulin repeat homology; protein ki;
Keywords: ATP; calcium binding; EF hand; phosphotransferase; serine/threonine-specifi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Cross-references: UNIPROT:081390; EMBL:AF072908; NID:g3283995; PIDN:AAC25423.1; PID:g3
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  Local
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Similarity
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37.5%;
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  34.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      34.8%; Score 49; DB 66.7%; Pred. No. 17;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Clip11262
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  Score
Pred
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  ¥8;
  11;
                       2;
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                       Length
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A;Cross-references: UNIPROT:Q9PD55; GB:AB003982; GB:AB003849; NID:g9106554; PIDN:AAF8433: A;Experimental source: strain 9a5c 
R;Simpson, A.J.G.; Reinach, F.C.; Arruda, P.; Abreu, F.A.; Acencio, M.; Alvarenga, R.; Al Briones, M.R.S.; Bueno, M.R.P.; Camargo, A.A.; Camargo, L.E.A.; Carraro, D.M.; Carrer, H. as-Neto, E.; Docena, C.; El-Dorry, H.; Facincani, A.P.; Ferreira, A.J.S. submitted to GenBank, June 2000
A;Authors: Ferreira, V.C.A.; Ferro, J.A.; Fraga, J.S.; Franca, S.C.; Franco, M.C.; Frohme J.D.; Junqueira, M.L.; Kemper, B.L.; Kitajima, J.P.; Krieger, J.E.; Kuramae, E.E.; Laigre Chado, M.A.; Madeira, A.M.B.N.; Madeira, H.; Menck, C.F.M.; Miracca, E.C.; Miyaki, C.Y.; F.G.; Nunes, L.R.; Oliveira, M.A.; de Oliveira, M.C.; de Oliveira, R.C.; Palmieri, D.A., Rodrigues, V.; Rosa, A.C.; de Rosa Jr., V.E.; de Sa, R.G.; Santelli, R.V.; Sawasaki A;Authors: da Silva, A.C.; da Silva, F.R.; da Silva, R.M.; Silva, A.M.; Silva, A.M.; Silva, A.M.; Silva, A.M.; Silva, A.M.; Od Silva, A.R.; Van Sluys, M.A.; Verjovski-Almeida, S.; Vettore, A.L.; Za, A.R.; Estella, A.C.; A.S.; Van Sluys, M.A.; Verjovski-Almeida, S.; Vettore, A.L.; Za, A.R.; Estella, R.C.; A.S.; Vettore, A.L.; Za, A.R.; Estella, R.C.; A.S.; Van Sluys, M.A.; Verjovski-Almeida, S.; Vettore, A.L.; Za, A.R.; Estella, R.C.; A.S.; Van Sluys, M.A.; Verjovski-Almeida, S.; Vettore, A.L.; Za, A.R.; Estella, R.C.; A.S.; Vettore, A.L.; Za, 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  A;Title: The genome sequence of the plant pathogen Xylella fastidiosa. A;Reference number: A82515; MUID:20365717; PMID:10910347 A;Note: for a complete list of authors see reference number A59328 below A;Accession: G82670
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C;Species: Xylella fastidiosa
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        멼
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R;anonymous, The Xylella fastidiosa Consortium of the Organization for Nucleotide Sequent
Nature 406, 151-157, 2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Matches
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Best Local Similarity
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294 IEVWEELSRRLPNGTYLEKFAIE 316
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                                                                           VAIYEEFLRMTRNGTQLQNFTLD 25
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                                                                                                                                                                         Conservative
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                                                                                                                                                                                                                   Score 48; DB
Pred. No. 16;
                                                                                                                                                                             Mismatches
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RESULT 6
A84902
auxin-regulated protein GH3 homolog At2g46370 - Arabidopsis thaliana
C;Species: Arabidopsis thaliana (mouse-ear cress)
C;Date: 0.2-Feb-2001 #sequence_revision 02-Feb-2001 #text_change 09-Jul-2004
C;Accession: A84902
R;Lin, X; Kaul, S.; Rounsley, S.D.; Shea, T.P.; Benito, M.I.; Town, C.D.; Fujii, C.Y.; N
R;Lin, X.; Kaul, S.; Rounsley, S.D.; Shen, M.; VanAken, S.B.; Umayam, L.; Tallon, L.;
M.; Koo, H.; Moffat, K.S.; Cronin, L.A.; Shen, M.; VanAken, S.B.; Umayam, L.; Tallon, L.;
euss, D.; Nierman, W.C.; White, O.; Eisen, J.A.; Salzberg, S.L.; Fraser, C.M.; Venter, J.
Nature 402, 761-768, 1999
A;Title: Sequence and analysis of chromosome 2 of the plant Arabidopsis thaliana.
A;Reference number: A84420; MUID:20083487; PMID:10617197
A;Accession: A84902
A;Residues: preliminary
A;Rolecule type: DNA
A;Residues: 1-576 <STO>
A;Genetics: UNIPROT:098KE2; GB:AE002093; NID:g4559380; PIDN:AAD23040.1; GSPDB:GNC
C;Genetics: UNIPROT:098KE2; GB:AE002093; NID:g4559380; PIDN:AAD23040.1; GSPDB:GNC
A;Map position: 2
C;Superfamily: soybean auxin-regulated protein GH3
Query Match 34.0%; Score 48; DB 2; Length 576;

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C;Date:
C;Access
                                                                                                                                                                                                                                 RESULT 8
S24234
                                                                                                                                                          glutamate decarboxylase (EC 4.1.1.15) alpha - Escherichia coli (strain K-12)
N;Alternate names: GAD alpha protein; L-glutamate 1-carboxy-lyase
C;Species: Escherichia coli
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Molecule type: protein
A; Residues: 1-4, 'LQVI', '7-15 < YOS>
R; Blattner, F.R.; Plunkett III, G.; Bloch, C.A.; Perna, N.T.; Burland,
A.; Rose, D.J.; Mau, B.; Shao, Y.
Science 277, 1453-1462, 1997
A; Title: The complete genome sequence of Escherichia coli K-12.
A; Reference number: A64720; MUID: 97426617; PMID: 9278503
A; Accession: H64902
                   A; Reference number: A; Accession: S47737
                                                                                        R;Plunkett, G.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    A; Description: catalyzes the formation of gamma-aminobutyric acid, A; Note: in E. coli, two isoforms (alpha and beta) have been found, C; Superfamily: Escherichia coli glutamate decarboxylase C; Keywords: carbon-carbon lyase; carboxy-lyase; homohexamer; phospl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          A;Crobs-references: UNIPROT:P28302; GB:M84025; NID:g146059; PIDN:AAA23834.1; R;Yoshida, T.; Ueguchi, C.; Yamada, H.; Mizuno, T.
Mol. Gen. Genet. 237, 113-122, 1993
A;Title: Function of the Escherichia coli nucleoid protein, H-NS: molecular & A;Reference number: S30261; MUID:93204884; PMID:8455549
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               N;Alternate names: L-glutamate 1-carboxy-lyase
C;Species: Escherichia col1
C;Date: 10-Mar-1994 #sequence revision 23-Mar-1995 #text_change
C;Accession: B43332; S30261; H64902
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      밁
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                                                                  submitted to the EMBL Data Library,
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A;Cross-references: GB:AE000246; GB:U00096; NID:g1787764;
A;Experimental source: strain K-12, substrain MG1655
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Reference number: A43332;
A; Accession: B43332
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    R;Smith, D.K.; Kassam, T.; Singh, B.; Elliott, J.F.
J. Bacteriol. 174, 5820-5826, 1992
A;Tille: Bescherichia coli has two homologous glutamate decarboxylase genes
A;Reference number: A43332; MUID:92394884; PMID:1522060
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        glutamate decarboxylase (BC 4.1.1.15) beta - Escherichia coli
N;Alternate names: L-glutamate 1-carboxy-lyase
A;Status:
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A; Residues: 1-466 < SMI>
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                                                                                                                Accession:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Genetics:
                                                                                                         22-Jan-1993 #sequence_revision 05-Dec-1997 #text_change 09-Jul-2004
sion: S47737; H65149; S24234; S23421; A43332; PN0616
preliminary
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              site: pyridoxal phosphate
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4; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 47.5;
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                                                                  March 1994
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E91178
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A;Description: catalyzes the formation of gamma-aminobutyric acid,
A;Note: in E. coli, two isoforms (alpha and beta) have been found,
C;Superfamily: Escherichia coli glutamate decarboxylase
C;Keywords: carbon-carbon lyase; carboxy-lyase; homohexamer; phosph
F;276/Binding site: pyridoxal phosphate (Lys) (covalent) #status px
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            A; Map position:
C; Function:
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A,Note: sequence extracted from backbone (NCBIN:112979, NCBIP:112980)
R,Yoshida, T.; Yamashino, T.; Ueguchi, C.; Mizuno, T.
Biosci. Biotechnol. Biochem. 57, 1568-1569, 1993
A;Tittle: Expression of the Escherichia coli dimorphic glutamic acid decarboxylases
A;Reference number: PN0616, MUID:94033862; PMID:7764225
A;Accession: PN0616
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A; Residues: 1-466 < SMI >
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A;Residues: 148-164, S',166-207,'N',209-294,'V',296-431 <MAR1>
A;Residues: 148-164, S',166-207,'N',209-294,'V',296-431 <MAR1>
A;Cross-references: GB:X63123; NID:941601; PIDN:CAA44834.1; PID:g938166
A;Smith, D.K.; Kassam, T.; Singh, B.; Elliott, J.F.

J. Bacteriol. 174, 5820-5826, 1992
A;Title: Escherichia coli has two homologous glutamate decarboxylase genes that map
A;Reference number: A43332; MUID:92394884; PMID:1522060
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A;Residues: 1-63,'S',65-72,'R',74-152,'N',154-164,'S',166-354,'N',356-466
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A;Title: The amino acid sequence of glutamate decarboxylase A;Reference number: S23421; MUID:92155241; PMID:1740158
A;Accession: S24234
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Accession: A43332
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                                                                                                            Matches
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VAIYEEFLRMTRNG-TQLQN
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                                                                                                      Conservative
                                                                                                                                                 33.7%;
55.0%;
                                                                                                      4.
                                                                                                                                                            Score 47.5;
Pred. No. 2
     21
                                                                                                            Mismatches
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                                                                                                                                                                                                                                                                                                              homohexamer; phosphoprotein; covalent) #status predicted
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ey, M.; Col
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325 IAQYYEFLRLGREGYTKVQN
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R;Hayashi, T.; Makino, K.; Ohnishi,
gasawara, N.; Yasunaga, T.; Kuhara,
DNA Res. 8, 11-22, 2001
A;Title: Complete genome sequence of
                                                                                                                                  Glutamate decarboxylase isozyme [imported] - Escherichia coli (strain O157: C;Species: Escherichia coli (c;Species: Escherichia coli (c;Date: 18-Jul-2001 #sequence_revision 18-Jul-2001 #text_change 09-Jul-2004 C;Accession: E91178
                                                                        M.; Kurokawa, K.; Ishii
S.; Shiba, T.; Hattori,
                                                                                                                                                                                                                                      coli (strain O157:H7,
                                                                    K.; Yokoyama, K.;
M.; Shinagawa, H.
                                                                                                                                                                                                                                          substrain
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A;Reference number: A99629; MUID:21156231; PMID:11258796
A;Accession: E91178 coli 0157:H7 and genon

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RESULT 11
G85726
                                                                                                                                                                                                                                                                                                  C;Species: Escherichia coli
C;Date: 16.-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 09-Jul-2004
C;Date: 16.-Feb-2001 #sequence_revision 16-Feb-2001 #text_change 09-Jul-2004
C;Accession: G85726
R;Perna, N.T.; Plunkett III, G.; Burland, V.; Mau, B.; Glasner, J.D.; Rose, iller, L.; Grotbeck, E.J.; Davis, N.W.; Lim, A.; Dimalanta, E.; Potamousis, Nature 409, S29-533, 2001
A;Title: Genome sequence of enterohemorrhagic Escherichia coli O157:H7.
A;Reference number: A85480; MUID:21074935; PMID:11206551
A;Accession: G85726
                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Accession: F86024
C;Accession: F86024
R;Perna, N.T.; Plunkett III, G.; Burland, V.; Mau, B.; Glasner, R;Perna, N.T.; Plunkett III, G.; Burland, V.; Mau, B.; Glasner, R;Perna, N.T.; Plunkett III, G.; Burland, V.; Mau, B.; Glasner, R;Perna, N.T.; Lim, A.; Dimalanta, E.;
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C;Superf
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A;Cross-references: UNIPROT:P58228; GB:BA000007; PIDN:BAB37820.1; PID:g13363871; GSPDB:
A;Experimental source: strain O157:H7, substrain RIMD 0509952
C;Genetics:
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A;Residues: 1-466 <STO>
A;Cross-references: UNIPROT:P28302; GB:AB005174; NID:g12515184; PIDN:AAG56275.1;
A:Experimental source: strain O157:H7, substrain EDL933
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A; Residues: 1-466 < STO>
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Best Local Similarity
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Similarity 55.0%;
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Pred. No. 2
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Pred. No. 2
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Pred. No. 2
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Potamousis,
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C;Accession: AB2868 R; Wood, D.W.; Setubal, J.C.; Kaul, R.; Monks, D.; Chen, L.; Wood, G.E.; Chen, Y.; Woo, L. erage, G.; Gillet, W.; Grant, C.; Guenthner, D.; Kutyavin, T.; Levy, R.; Li, M.; McClella; Karp, P.; Romero, P.; Zhang, S. Science 294, 2317-2323, 2001
                                                                                                                                                                 RESULT
AB2868
                                                                                                                                                                                                                                                                                                                                                                                                     A;Gene: CESP:C13A2.11
A;Map position: 5
A;Introns: 7/3; 33/3; 71/2; 219/1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DNA Res. 8, 11-22, 2001
A;Title: Complete genome sequence of enterohemorrhagic Escherichia coli O157:H7
A;Reference number: A99629; MUID:21156231; PMID:11258796
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gasawara, N.; Yasunaga, T.; Kuhara, S.; Shiba, T.; Hattori,
                                                                                              UDP-hexose transferase [imported] - Agrobacterium tumefaciens (strain C58, C;Species: Agrobacterium tumefaciens C;Date: 11-Jan-2002 #sequence_revision 11-Jan-2002 #text_change 09-Jul-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Cross-references: UNIPROT:016875; EMBL;AF022967; PIDN:AAB69881.1; GSPDB:GN00023; CESP:(A;Experimental source: strain Bristol N2; clone Cl3A2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               A;Cross-references: UNIPROT:P28302; GB:BA000007; A;Experimental source: strain O157:H7, substrain
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A; Residues: 1-466 <HAY>
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A; Residues: 1-231 < ROH>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               submitted to the EMBL Data Library, September 1997 A;Description: The sequence of C. elegans cosmid C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       R; Rohlfing, T.; Wohldmann,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hypothetical protein C13A2.11 - Caenorhabditis elegans
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;Date: 18-Jul-2001 #sequence_revision
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RIMD 0509952
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Search completed: October 27, 2005, 18:57:28 Job time : 18.3209 secs
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A;Gene: AGR C 4307
A;Map positTon: circular chromosome
C;Superfamily: Neisseria meningitidis glycosyl transferase A
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F97644
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A;Residues: 1-316 <KUR>
A;Cross-references: UNIPROT:Q8UCW1; GB:AE007869; PIDN:AAK88111.1; PID:g15157543; GSPDB:
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A;Title: The Genome of the Natural Genetic Engineer Agrobacterium tumefaciens C58.
A;Reference number: AB2577; MUID:21608550; PMID:11743193
A;Accession: AB2868
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Title: Genome Sequence of the Plant Pathogen and Biotechnology Agent Agrobacterium tum
A;Reference number: A97359; MUID:21608551; PMID:11743194
A;Accession: F97644
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R;Goodner, B.; Hinkle, G.; Gattung, S.; Miller, N.; Blanchard, M.; Qurollo, B.; Goldman, A.; Liu, F.; Wollam, C.; Allinger, M.; Doughty, D.; Scott, C.; Lappas, C.; Markelz, B.; Science 294, 2323-2328, 2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            UDP-hexose transferase (AF039306) [imported] - Agrobacterium tumefaciens (strain C58, Ce
C;Species: Agrobacterium tumefaciens
C;Dates 30-Sep-2001 #sequence_revision 30-Sep-2001 #text_change 09-Jul-2004
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A;Molecule type: DNA
A;Residues: 1-316 <KUR>
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Best Local Similarity 38.5%;
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PROSITE; PS50024; SEA; 6.
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Submitted (SEP-2003) to the EMBL/GenBs
EMBL; AF361486; AAK74120.3; -.
HSSP; Q9D1H1; 11VZ;
HTSP: (1PR0000194; ATPase_a/bcentre.
InterPro; IPR0000082; SEA.
Pfam; PF01390; SEA; 20.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SEQUENCE FROM N.A.

MEDLINB=21347965; PubMed=11369781; DOI=1
Yin B.W., Lloyd K.O.;
"Molecular cloning of the cal25 ovarian
as a new mucii, mucl6.";
J. Biol. Chem. 276:27371-27375(2001).
                                                                                                         SEQUENCE FROM N.A.
MEDLINE=21646939; PubMed=11786729; DOI=10.
O'Brien T.J., Beard J.B., Underwood L.J.,
                                                                                                                                                                                                                                                                                 01-MAR-2002 (TrEMBLrel. 20, Created)
01-MAR-2003 (TrEMBLrel. 23, Last sequence update)
01-MAR-2004 (TrEMBLrel. 26, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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01-MAR-2004 (TrEMBLrel. 26,
01-MAR-2004 (TrEMBLrel. 26,
                                                                   York L.; "The CA 125 gene:
                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                     Tumour Biol.
                                                                                                                                                                                                                                                                 Ovarian cancer related tumor
                                                                                                                                                                                                                                                                                                                                             Q8WXI7;
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                                                                                                                                                                                       NCBI_TaxID=9606;
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llarity 100.0%;
Conservative 0
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Primates;
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Last sequence update)
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Pred. No. 6.1e-12;
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Catarrhini; Hominidae;
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Pred. No. 7.6e-13;
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                                                                       superstructure
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Dennis R.A., Sa
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                                                                                                                                                                                                                             Euteleostomi;
                                                                                                             Santin A.D.,
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Best Local
[5]
SEQUENCE FROM N.A.
STRAIN=C57BL/6J; TISSUE=Whole body;
STRAIN=C57BL/6J; TISSUE=Whole body;
MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
MEDLINE=20530913; PubMed=11076861; DOI=10.1101/gr.152600;
Shibata K., Itoh M., Aizawa K., Nagaoka S., Sasaki N., Cashibata K., Itoh M., Nishi K., Kitsunai T., Tashiro H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           [2]
SEQUENCE /
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Submitted (OCT-2002) to the EMBL/GenBank/DDBJ databases.
EMBL; AF414442; AAL65133.2; -.
Genew; HGRC:15582; MUC16.
Pfam; PF01390; SEA; 51.
SMART; SM00120; SEA; 23.
PROSITE; PS00152; ATPASE ALPHA_BETA; UNKNOWN_2.
PROSITE; PS50024; SEA; 11.
SEQUENCE 22152 AA; 2352668 MW; B3E7BDF19997A440 CRC6.
                                                                                                                                             SEQUENCE FROM N.A.

STRAIN-C57BL/6J; TISSUB-whole body;

STRAIN-C57BL/6J; TISSUB-whole body;

MEDLINE-20499374; PubMed=11042159; DOI=10.1101/gr.145100;

Carninci P., Shibata Y., Hayatsu N., Sugahara Y., Shibata K.,

Konno H., Okazaki Y., Muramatsu M., Hayashizaki Y.;

"Normalization and subtraction of cap-trapper-selected cDNAs
prepare full-length cDNA libraries for rapid discovery of new
Genome Res. 10:1617-1630(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN=C57BL/6J; TISSUE=Whole body; MEDLINE=21085660; PubMed=11217851; I RIKEN FANTOM Consortium; "Functional annotation of a full-len Nature 409:685-690 (2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  01-JUN-2001 (TrEMBLrel. 17, Created)
01-JUN-2001 (TrEMBLrel. 17, Last sequence update)
01-JUN-2003 (TrEMBLrel. 24, Last annotation update)
Mus musculus 18-day embryo whole body cDNA, RIKEN full-length enriched
                                                                                                                                                                                                                                                                                                                       The FANTOM Consortium, the RIKEN Genome Exploration Research Group Phase I & II Team; the RIKEN Genome Exploration Research Group Phase I & II Team; "Analysis of the mouse transcriptome based on functional annotation 60,770 full-length cDNAs."; Nature 420:563-573(2002).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Carninci P., Hayashizaki Y.; "High-efficiency full-length c Meth. Enzymol. 303:19-44(1999)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRAIN=C57BL/6J; TISSUB=Whole body; MEDLINE=99279253; PubMed=10349636;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            library, clone:1110008I14 product:hypothetical SEA domain containing protein, full insert sequence.
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Mammalia; Eutheria;
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Rodentia;
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Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DOI=10.1038/35055500;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     B3E7BDF19997A440 CRC64;
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No. 2.3e-11;
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                                                           Natsumoto K., Hirano M., Sano S., Shoji T., Ichihara T., Shiohata N.,
Matsumoto K., Hirano M., Sano S., Nomura R., Yoshikawa Y.,
Matsumoto K., Moriya S., Chiba B., Momiyama H., Onogawa S.,
Matsumura Y., Moriya S., Chiba B., Momiyama H., Onogawa S.,
Matsumara S., Satoh N., Matsunawa H., Takahashi E., Kataoka R.,
Kuga N., Kuroda A., Satoh I., Kamata K., Takami S., Terashima Y.,
Matanabe M., Sugiyama T., Irie R., Otsuki T., Sato H., Wakamatsu A.,
Ishii S., Yamamoto J., Isono Y., Kawai-Hio Y., Saito K., Nishikawa T.,
Kimura K., Yamashita H., Matsuo K., Nakamura Y., Sekine M.,
Kikuchi H., Kanda K., Wagatsuma M., Murakawa K., Kanehori K.,
A Kikuchi H., Kanda K., Wagatsuma M., Murakawa K., Kanehori K.,
A Takahashi-Fujii A., Oshima A., Sugiyama A., Kawakami B., Suzuki Y.,
Sugano S., Nagahari K., Masuho Y., Nagai K., Isogai T.;
Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases.

EMBL; AK128681; BAC97568.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            RC STRÂIN=C57BL/6J; TISSUE=Whole body;
RA Adachi J., Aizawa K., Akahira S., Akimura T., Arai A., Aono H.,
RA Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,
RA Arakawa T., Bono H., Carninci P., Fukuda S., Fukunishi Y., Furuno M.,
RA Hanagaki T., Hara A., Hayatsu N., Hiramoto K., Hiracka T., Hori F.,
RA Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
RA Kawai J., Kojima Y., Konno H., Kouda M., Koya S., Kurihara C.,
RA Kawai J., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M.,
RA Matsuyama T., Miyazaki A., Nishi K., Nomura K., Numazaki R., Ohno M.,
RA Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
RA Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
RA Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai C., Sakai K.,
RA Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai F.,
RA Okazaki Y., Okido T., Owa C., Saito H., Saito R., Sakai F.,
RA Okazaki Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T.,
RA Sogabe Y., Suzuki H., Tagami M., Tagawa A., Takahashi F., Tanaka T.,
RA Tejima Y., Toya T., Yamamura T., Yasunishi A., Yoshida K., Yoshino M.,
RA Muramatsu M., Hayashizaki Y.;
RA Submitted (JUL-2000) to the EMBL/GenBank/DDBJ databases.
RMEL, AKO03577, BAB22869 1; -.
DR PDB; 1IVZ; NMR; A=60-190.
RGI:1920982; 1110008114Rik.
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Best Local S
Matches 25
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06ZQW5
05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hypothetical protein FLJ46845.
Homo sapiens (Human).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sumi N., Ishii Y., Nakamura S., Hazama M., Nishine T., Harada A., Yamamoto R., Matsumoto H., Sakaguchi S., Ikegami T., Kashiwagi K., Fujiwake S., Inoue K., Togawa Y., Izawa M., Ohara E., Watahiki M., Yoneda Y., Ishikawa T., Ozawa K., Tanaka T., Matsuura S., Kawai J., Okazaki Y., Muramatsu M., Inoue Y., Kira A., Hayashizaki Y.; "RIKEN integrated sequence analysis (RISA) system-384-format sequencing pipeline with 384 multicapillary sequencer."; Genome Res. 10:1757-1771(2000).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PROSITE; PS50024; SEA; 1.
                                                                                                                                                                                                                                                                                                                                                                                 TISSUE=Uterus;
                                                                                                                                                                                                                                                                                                                                                                                                                                                      NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Hypothetical
SEQUENCE 25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         InterPro; IPR000082; SEA.
Pfam; PF01390; SEA; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      154 DRVAIYEEFLRMTHNGTQLLNFTLDRKS
                                             PF01390; SEA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 DRVAIYEEFLRMTRNGTQLQNFTLDRSS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 n 88.7%;
Similarity 89.3%;
01390; SEA; 4.
PS50024; SEA; 2.
867 AA; 96200 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        258 AA; ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ΑĄ;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      29425 MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Score 125; DB 2;
Pred. No. 4.3e-11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Craniata; Vertebrata; Eutele
Catarrhini; Hominidae; Homo
C7B3033258839622 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      B64D9B63394D84E7
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Euteleostomi;
                                                                                                                                                                                                                      Wakamatsu A.,
Wahikawa T.,
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RESULT 6
QGUANG
ID TANG
ID TO 5-J
DT 05-J
DT 0
RESULT
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Best Local S
Matches 12
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Best Local
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01-MAR-2002
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Mauceli E., Bouneau L., Fischer C., Ozouf-Costaz C., Bernot A.,
Mauceli E., Bouneau L., Fischer S., Lutfalla G., Dossat C., Segurens B.,
Nicaud S., Jaffe D., Fisher S., Lutfalla G., Dossat C., Segurens B.,
Dasilva C., Salanoubat M., Levy M., Boudet N., Castellano S.,
Anthouard V., Jubin C., Castelli V., Katinka M., Vacherie B.,
Blimont C., Skalli Z., Cattolico L., Poulain J., Berardinis Vd.,
Cruaud C., Duprat S., Brottier P., Coutanceau J.-P., Gouzy J.,
Parra G., Lardier G., Chapple C., McKernan K.J., McEwan P., Bosak S.,
Kellis M., Volff J.-N., Guigs R., Zody M.C., Mesirov J.,
Lindblad-Toh K., Birren B., Nusbaum C., Kahn D., Robinson-Rechavi M.,
Laudet V., Schachter V., Quitler F., Saurin W., Scarpelli C.,
Wincker P., Lander E.S., Weissenbach J., Crollius H.R.;

"Analysis of the Tetraodon nigroviridis genome reveals the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         OGUANG:
05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence up
05-JUL-2004 (TrEMBLrel. 27, Last annotation
Class I helical cytokine receptor number 20.
                                 Listeria monocytogenes
Bacteria; Firmicutes; |
NCBI_TaxID=1639;
                                                                                                                                                                                                                                                                                                                                                            Q8Y6V6;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              EMBL; AY374492; AAR25683.1; --
GO; GO:0004872; F:receptor activity; IEA.
GO; GO:0004872; FR. [II-like.
InterPro; IPR008557; FN III-like.
InterPro; IPR003531; HemptreceptS_F1.
PROSITE; PS01355; HEMATOPO_REC_S_F1; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Tetraodon nigroviridis (Green puffer). Eukaryota, Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Eukaryota; Neopterygii; Teleostei; Euteleostei; Neoteleostei; Acanthomorpha; Acanthopterygii; Percomorpha; Tetraodontiformes; Tetraodontoidea; Tetraodontidae; Tetraodon.
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                                                                                                                                                         OrderedLocusNames=lmo1575;
                                                                                                                                                                                                   Lmo1575
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protokaryotype of bony vertebrates and its duplication in teleost
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM N.A.
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12; Conserv
                                                                                                                                                                                               protein
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           YEEFLR---MTRNGT-QLQNFTLDRSS 28
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        DREQLYWELSQLTHSITELGPYTLDRDS
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2 (TrEMBLrel.
3 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    419 AA;
                                                                                                                                                                                                                                                                                                                                                                                                      PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        46687 MW; 0F100D2F20EA4FF7 CRC64;
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20,
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Last annotation update)
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Pred. No. 12;
6; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 54; DB
Pred. No. 10;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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                                                                              Listeriaceae; Listeria
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Best Local S
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Q92BE0;
01-DEC-2001
                     Complete
SEQUENCE
                                                                                               InterPro; IRR003156; Pesterase DHHA)
InterPro; IPR001667; Pesterase_RecJ.
Pfam; PF01368; DHH; 1.
Pfam; PF02272; DHHA1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                   EMBL;
                                                                                                                                                                                                                                                                                                                                                                                                                                              "Comparative genomics of Listeria species."; Science 294:849-852(2001).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Listeria innocua.
Bacteria; Firmicutes;
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01-OCT-2003
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ListiList; LMO1575; -
                                                                                                                                                                                                                                                                                                                                                                PIR; AI1633; AI1633.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Pfam; PF02272; DHHA1; 1.
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                                                                                                                                                                                                                                                                     GO; GO:0003676; F:nucleic acid binding;
                                                                                                                                                                                                                                                                                                                         ListiList; LIN1610; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Lin1610 protein
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                                                                                                                                                                                                                                                                                                                                                                                                   AL596169; CAC96841.1; -.
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12; Conserv
                          proteome.
311 AA;
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37.5%;
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                              W.
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Last sequence update)
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Pred. No. 8.
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                              9C26D75EE426AE13 CRC64;
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Best Local Similarity
Matches 12; Conserv
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Welson K.E., Fouts D.E., Mongodin E.F., Ravel J., DeBoy R.T.,
Welson K.E., Fouts D.E., Mongodin E.V., Gill S.R., Paulsen I.T.,
KOlonay J.F., Rasko D.A., Angiuoli S.V., Gill S.R., Paulsen I.T.,
Peterson J.D., White O., Nelson W.C., Nierman W.C., Beanan M.J.,
Barinkac L.M., Daugherty S.C., Dodson R.J., Durkin A.S., Madupu R.,
Haft D.H., Selengut J., Van Aken S.E., Wonderling L.D., Molich G.A.,
Porberger H.A., Tran B., Kathariou S., Wonderling L.D., Uhlich G.A.,
Bayles D.O., Luchansky J.B., Fraser C.M.;
Whole genome comparisons of serotype 4b and 1/2a strains of the food-
borne pathogen Listeria monocytogenes reveal new insights into the
core genome components of this species.";
Nucleic Acids Res. 32:2386-2395(2004).
                                                                                                                                                 Oxygen-independent coproporphyrinogen OrderedLocusNames=DVU3057;
                                                                                                                                                                             05-JUL-2004 (TrEMBLrel. 27, Created)
05-JUL-2004 (TrEMBLrel. 27, Last sequence update)
05-JUL-2004 (TrEMBLrel. 27, Last annotation update)
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05-JUL-2004 (TrEMBLrel. 27,
05-JUL-2004 (TrEMBLrel. 27,
05-JUL-2004 (TrEMBLrel. 27,
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        PubMed=15077118; DOI=10.1038/nbt959;
Heidelberg J.F., Seshadri R., Haveman
Kolonay J.F., Eisen J.A., Ward N.L., P
                                                                                                                                                                                                                                      Q726P9
                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
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GO; GO:0003676; F:nucleic acid binding;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Listeria monocytogenes (serotype 4b / strain F2365).
Bacteria; Firmicutes; Bacillales; Listeriaceae; Listeria
                                                   SEQUENCE FROM N.A.
                                                                            NCBI_TaxID=882;
                                                                                                                         8303)
                                                                                                                                                                                                                       Q726P9;
                                                                                                                                                                                                                                                                                                                                                                                                                                               InterPro; IPR003156; Pesterase
InterPro; IPR001667; Pesterase
Pfam; PF01368; DHH; 1.
Pfam; PF02272; DHHA1; 1.
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                                                                                           Desulfovibrionaceae;
                                                                                                         Bacteria; Proteobacteria;
                                                                                                                                     Desulfovibrio
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12; Conserv
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                                                                                           eria; Deltaproteobacteria;
Desulfovibrio.
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                                                                                                                                  (strain Hildenborough / ATCC 29579 / NCIMB
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Last sequence update)
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Pred. No. 8.7;
5; Mismatches
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Pred. No. 8.
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Mismatches
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the B.A.,
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GO; GO:0005737; C:cytoplasm; IEA.

GO; GO:0003824; F:catalytic activity; IEA.

GO; GO:0004109; F:coproporphyrinogen oxidase activity; IEA.

GO; GO:0005506; F:iron ion binding; IEA.

GO; GO:0006779; P:porphyrin biosynthesis; IEA.

InterPro; IPR00638; Elp3/MiaB/NifB.

InterPro; IPR00723; HemN_C.

InterPro; IPR000169; Pept_ys_acsite.

InterPro; IPR000169; Pept_ys_acsite.

InterPro; IPR001069; Radical SAM.

InterPro; IPR0011060; Raipp_bind_barrel.
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Q7Q949; (TrEMBLrel. 26, Created)
01-MAR-2004 (TrEMBLrel. 26, Last sequence up)
01-MAR-2004 (TrEMBLrel. 26, Last annotation of the control of the control
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                                                                                                                                                                                          PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Anopheles Genome Sequencing Consortium;
Submitted (MAR-2002) to the EMBL/GenBank/DDBJ databases
-!- CAUTION: The sequence shown here is derived from an
EMBL/GenBank/DDBJ whole genome shotgun (WGS) entry v
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Nat. Biotechnol. 22:554-559(20 EMBL; AE017319; AAS97528.1; -. TIGR; DVU3057; -.
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Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea; Anopheles.
NCBI_TaxID=180454;
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TIGRFĀMS; TIGRO0539; hemN rel; 1.
PROSITE; P800639; THIOL_PROTEASE_HIS; UNKNOWN_1.
Complete proteome.
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Pfam; PF04055; Radical_SAM; 1.
                                                                                                                                                                                                                                                                    Pfam; PF01130; CD36;
                                                                                                                                                                                                                                                                                                GO; GO:0016020; C:membrane; IEA.
GO; GO:0007155; P:Cell adhesion; IEA.
InterPro; IPR007928; Antifreeze_CF.
InterPro; IPR002159; CD36.
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45.8%;
   <u>ب</u>
   Score 52; DB:
Pred. No. 28;
2; Mismatches
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Pred. No.
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                                                                         Length 530
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RESULT 12
Q8SVW5
ID Q8SVW
AC Q8SVW
DT 01-JU
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RN SEQUI
RX MEDLI
RX GENGU
   Q65DU9
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Matches 11
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Q8SVW5;
Q8SVW5;
Q8SVW5;
O1-JUN-2002 (TrEMBLrel. 21, Created)
O1-JUN-2002 (TrEMBLrel. 21, Last se
O1-JUN-2002 (TrEMBLrel. 21, Last an
                                                                                                                  SEQUENCE FROM N.A.
STRAIN=DSM 13;
PubMed=15383718;
Veith B., Herzberg C., Steckel S., Feesche J.,
Ehrenreich P., Baeumer S., Henne A., Liesegang
Ehrenreich A., Gottschalk G.;
                                                                                                                                                                                                                                      Name=ywkC; Synonyms=racA; ORFNames
Bacillus licheniformis DSM 13.
Bacteria; Firmicutes; Bacillales;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Name=ECU04_0440;
Encephalitozoon cuniculi GB-M1.
Eukaryota; Fungi; Microsporidia;
NCBI_TaxID=284813;
                                                                                                                                                                                                                                                                                  25-OCT-2004 (TrEMBLrel. 28, Created)
25-OCT-2004 (TrEMBLrel. 28, Last sequence up
25-OCT-2004 (TrEMBLrel. 28, Last annotation
ywkC (Putative DNA binding).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Genoscope;
Submitted (APR-2001) to the
EMBL; AL590444; CAD25231.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE=21576510; PubMed=11719806; DOI=10.1038/35106579; Katinka M.D., Duprat S., Cormillot E., Metenter G., Thomarat F., Prensier G., Barbe V., Peyretaillade E., Brottier P., Wincker P., Delbac F., El Alaoui H., Peyret P., Saurin W., Gouy M., Weissenbach J., Vivares C.P.; "Genome sequence and gene compaction of the eukaryote parasite Encephalitozoon cuniculi.";
                             SEQUENCE FROM N.A. STRAIN=ATCC 14580;
                                                                         "The Complete Genome Sequence of Bacillus licheniformis DSM13, Organism with Great Industrial Potential.";
J. Mol. Microbiol. Biotechnol. 7:204-211(2004).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Hypothetical protein. SEQUENCE 631 AA; 73302 MW;
              Rey M.W.,
                                                                                                                                                                                                                        NCBI_TaxID=279010;
                                                                                                                                                                                                                                                                                                                                                  Q65DU9;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       STRAIN=GB-M1;
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de Leon A.L.
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nilarity 39.3%;
Conservative
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   A.L.,
Nelson
., Xiang
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Pred. No. 41;
6; Mismatches
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B.A., Brody-Karpin S.D., Za: H., Gusti V., Clausen I.G.,
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annotation updat
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                                                                                                                                   Maurer K.H.,
H., Merkl R.,
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 Zaretsky
G., Olsen
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Best Local S
Matches 10
GO; GO:0005634; C:nucleus; IEA.
GO; GO:0005700; F:transcription fac
GO; GO:0006335; P:regulation of tra
InterPro; IPR000679; Znf_GATA.
Pfam; PF00320; GATA; 1.
PROSITE; PS50114; GATA_ZN_FINGER_2;
SEQUENCE 339 AA; 37091 MW; 2FFE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Carninci P., Chen H., Cheuk R., Chan M.M., Chang C.H., Dale J.M., Deng J.M., Hayashizaki Y., Hsuan V.W., Lee J.M., Ishida J., Kamiya A., Kawai J., Kim C.J., Narusaka M., Quach H.L., Sakurai T., Satou M., Seki M., Shinn P., Tang C.C., Toroumi M., Wallender E.K., Wong C., Wu H.C., Yamada K., Yu G., Yuan S., Shinozaki K., Ecker J., Submitted (JUL-2002) to the EMBI/Gara--'
                                                                                                                                                                                                         SEQUENCE FROM N.A.

KAIM C.J., Chen H., Cheuk R., Shinn P., Bowser L., Carninci P.

Dale J.M., Hayashizaki Y., Ishida J., Jones T., Kamiya A.,

Karlin-Neumann G., Kawai J., Lam B., Lin J., Miranda M., Nar

Nguyen M., Onodera C.S., Palm C.J., Quach H.L., Sakurai T.,

Seki M., Southwick A., Toriumi M., Wong C., Wu H.C., Yamada

Shinozaki K., Davis R.W., Theologis A., Ecker J.R.;

Submitted (AUG-2003) to the EMBL/GenBank/DDBJ databases.

EMBL; AR03221; BBB10711.1; -.

EMBL; AY136450; AAM97115.1; -.

EMBL; B7010367; AAC56810.1; -.

EMBL; B7010367; AAC56810.1; -.
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EMBL; AE017333; AA042765.1; -.

EMBL; CP000002; AAU25390.1; -.
                                                                                                             GO; GO; GC; GC;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Arabidopšis thaliana (Mouse-ear cress).
Eukaryota; Viridiplantae; Streptophyta; Embryophyta;
Spermatophyta; Magnoliophyta; eudicotyledons; core eu
eurosids II; Brassicales; Brassicaceae; Arabidopsis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     09FH57;
01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
05-UUL-2004 (TrEMBLrel. 27, Last annotation update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Rasmussen M.D., Andersen J.T., Jorgensen P.L., Larsen T.S.,
Sorokin A., Bolotin A., Lapidus A., Galleron N., Ehrlich S.D.,
Berka R.M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GATA-binding transcription Name=At5g66320;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  features of the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "Structural analysis of Arabidopsis thaliana chromosome 5. X. Sequence features of the regions of 3,076,755 bp covered by sixty P1 and TAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sato S.,
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                                                                                                                                                                                         P17679; 1GNF.
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Y., Kaneko T., K
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              36.2%;
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Pred. No. 12;
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  PR 2; 1.
2FFB0ABB541D3523 CRC64;
                                                                                                       factor activity; IBA.
transcription, DNA-dependent;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                         RX PubMed=12447438; DOI=10.1038/nature01184;

RA Sasaki T., Matsumoto T., Yamamoto K., Sakata K., Baba T., Katayose Y.,

RA Wu J., Niimura Y., Cheng Z., Nagamura Y., Antonio B.A., Kanamori H.,

RA Hosokawa S., Masukawa M., Arita K., Chiden Y., Hayshi M.,

RA Hijishita S., Honda M., Tchikawa Y., Idohuma A., Iijima M., Ikeda M.,

RA Hijishita S., Honda M., Tchikawa Y., Itoh Y., Iwabuchi A., Kamiya K.,

RA Ikeno M., Itoh S., Itoh T., Itoh Y., Irabuchi A., Kamiya K.,

RA Karasawa W., Katagiri S., Kikuta A., Kobayashi N., Kono I.,

RA Karasawa W., Katagiri S., Kikuta A., Kobayashi T., Mukai Y.,

RA Machita K., Maehara T., Mizuno H., Mizubayashi T., Mukai Y.,

RA Nagasaki H., Nakashima M., Nakama Y., Nakamichi Y., Nakamira M.,

RA Namiki N., Negishi M., Ohta I., Ono N., Saji S., Sakai, K., Shibata M.,

RA Namiki N., Vamagata H., Yamane H., Yoshiki S., Yoshihara R., Yukawa K.,

RA Zhong H., Iwama H., Endo T., Ito H., Hahn J.H., Kim H.I., Eun M.Y.,

"The Common., Jiang J., Gojobori T.,

"The Common., Jiang J., Gojobori T.,
                                                                                                                            Matches
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Best Local &
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Oryza sativa (japonica cultivar-group).

Eukaryota, Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae;

Ehrhartoideae; Oryzeae; Oryza.
                                                                                                                                                                                                                                                                                  InterPro;
Pfam; PFO;
                                                                                                                                                                                                                                                                                                                                                                          "The genome sequence and structure of rice chromosome 1."; Nature 420:312-316(2002).
EMBL; AP002094; BAA96221.1; -.
                                                                                                                                                                                                                                                                                                                                                Gramene; Q9LWC3;
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64190 MW;
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